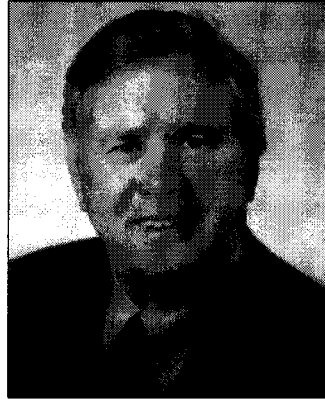


Predictions of major changes in the cost of asphalt

William W. Lampton is president of Ergon Asphalt & Emulsions, Inc., part of the Ergon, Inc. group of companies. The parent firm is widely diversified, dealing in a number of products and services that range from oil-and-gas refining, transportation, and terminals to commercial, industrial, and residential real estate to special industrial applications of information technology. Ergon Asphalt & Emulsions maintains headquarters in Jackson, Mississippi, but the company has branch offices and subsidiaries in numerous locations across the country. Because of the company's continued involvement in asphalt-related activities, we asked Lampton for his views on where the prices of asphalt might be headed in the future.

An Exclusive Hot-Mix Magazine Interview



William W. Lampton

President of Ergon Asphalt & Emulsions, Inc.

HOT-MIX: The fuel costs for cars, trucks, and home heating have been at elevated levels for some time now. But asphalt has been relatively stable. What is going to happen down the road?

LAMPTON: Diesel fuels and most heating oils are fungible products that are traded on the New York Mercantile Exchange. That simply means that they are more responsive to what the market might be at any point in time. As a result, they immediately go to whatever the market value happens to be for that day, week, or month. Of all the industrial fuels, diesel fuel is probably the most fungible. As a result, it is probably the only product that really reflects what the future has in store for some of the other products used in the construction industry. Why? Because it is the one where the industry doesn't really control supply and demand.

HOT-MIX: What about fuel oil?

LAMPTON: Fuel oil is probably a little more fungible than asphalt, even though you can't put it in a pipeline for distribution. You have to truck it, rail it, or barge it. But it is an industrial fuel and for that

reason, it is probably more of a fungible product than asphalt. Fuel oil might move up or down, but it can also be a direct competitor to asphalt as far as being an alternative to refineries.

HOT-MIX: An alternative?

LAMPTON: It's all about crude oil and cost. Historically, refiners were getting anywhere from 70 to 80 percent—up to 100 percent—of the crude-oil cost for their asphalt. But today, they are lucky to get 50 percent of the crude cost at the most. So that tells us that the market price of asphalt has not gone up nearly as much as the cost of gasoline and diesel fuel.

HOT-MIX: Why is that?

LAMPTON: Well, there are a lot of reasons why the market price of asphalt hasn't gone up. The Number One reason is that the refineries have not yet been upgraded in terms of sophisticated technology. They have been running their refineries very hard recently—at the highest possible levels. And the spread between the light, sweet crude and the heavy, sour crude has been wide enough to where they could still sell their bottoms—the asphalt—at a much lower price. In the refinery business models, they used to tell us to just take the bottoms and do whatever you want to with them. What it meant

was that you could almost give away the bottoms because the gasoline and diesel fuel would just about carry the whole barrel. But today, they are saying, "Look what we could do if we would put all of that stuff in cokers. We could take this barrel that is yielding only 50 percent of the crude cost and we could get up to 100 percent of the crude cost."

HOT-MIX: "Cokers"? What exactly are "cokers"?

LAMPTON: Probably one of the most threatening things that we have in the future for our industry—not just for fuel oil, but for asphalt—would be the cokers. It is a refinery process that represents very advanced oil-refinery technology. Cokers are also very expensive, but the investment in this technology makes sense when you take into consideration the market-price difference between the heavy fuels—like asphalt and fuel oil—and the diesel fuel and gasoline. Basically, what they will do is charge those products to the coker and make gasoline and diesel fuel out of the material that used to end up on the market as asphalt and fuel oil.

HOT-MIX: So they intend to use these cokers to increase the supply of gasoline, which will reduce the supply of asphalt...?

LAMPTON: When a refinery builds a coker, they are going to charge it and they are going to use it. And the only time they'll have bottoms available is when there is some type of problem or interruption in normal production. But once they build one of these cokers and put it into use, it is very difficult to back a product out and go to asphalt. Like I said: The biggest and most threatening thing for the asphalt industry is the construction of more

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cokers. In the last six months, a lot of refineries have announced that they plan to build them. A number of new cokers will be up and running some time between 2009 and 2010.

HOT-MIX: *Are they definitely going to build these cokers?*

LAMPTON: There's no reason why they won't. The cokers will be in addition to existing equipment. A refinery will either expand an existing coker or build a new one. Several major oil companies have already announced expansions or intentions to build new cokers at refineries that have been major producers of asphalt. And once these cokers are built, they will run them. They won't say, "Well, let's run asphalt today and tomorrow we'll do something different." Once they make that kind of investment in new equipment, they will run it.

HOT-MIX: *What kind of impact do you think this will have on the producers of hot-mix asphalt?*

LAMPTON: Well, let me give you an example. Let's just say that asphalt is now selling for \$200 per ton FOB the rack. Okay? They can take that same barrel to a coker and the asphalt will yield product—gasoline or diesel fuel—that could be worth \$300 to \$400 per ton, depending on the market. So what I'm saying is this: If asphalt does not come up in its market value, it will undoubtedly be used to make other products. For the refineries, this is a no-brainer: They build a coker and the payout is very, very quick because of the difference between market prices of asphalt and gasoline.

HOT-MIX: *Could this lead to short-ages in the supply of asphalt?*

LAMPTON: One thing is certain: It could lead to some unbelievable challenges in making asphalt available in certain parts of the country.

HOT-MIX: *As well as increased prices for asphalt?*

LAMPTON: I have always heard people say that the only thing worse than expensive asphalt is no asphalt at all.

HOT-MIX: *How can these potential problems be avoided?*

"The market price of asphalt must go up. It has to be competitive today, just like it was in earlier times. The price of crude oil started jumping up 18 months or two years ago, but the price of asphalt never really followed. And that's why the refineries are finding it easy to justify their investments in cokers."

LAMPTON: The market price of asphalt must go up. It has to be competitive, just like it was in earlier times. The price of crude oil started jumping up 18 months or two years ago, but the price of asphalt never really followed. And that's why the refineries are finding it easy to justify their investments in cokers. There are pressures on them from the government to supply more gasoline and diesel fuel—and one of the easiest ways to do that is to build cokers. The permitting is a lot easier with cokers. And they are able to take the most undesirable and hardest-to-

handle part of the barrel and put it through a coker to make gasoline and diesel fuel.

HOT-MIX: *Wouldn't an increase in the supply of gasoline and diesel fuel help keep the costs of the asphalt down?*

LAMPTON: Yes. But the industry projections indicate that even with the refineries' increased capacities, they are still not capable of keeping up with the demand. What has kept our country in balance for the last 15 years or so is imports from overseas. The supply of gasoline and diesel fuel from our domestic

A brief look at the coking process

The oil-refinery business has always been dependent on its ability to convert larger and heavier hydrocarbon molecules into simpler and lighter molecules which, in turn, can be made into more marketable products such as liquid propane gas, gasoline, and middle-distillate components. The technology of the conversion is called "cracking"—and it can utilize three methods: fluid-catalytic cracking, hydrocracking, and coking.

The latter method is a technology that has been around for a century or more. It can involve any of three different processes, but the one under discussion here is referred to as "delayed coking". It is an expensive process that is used specifically for vacuum residuals, aromatic gas oil, and thermal tars.

Delayed coking is often called "bottom of the barrel processing" because it is used to convert heavy crude oil fractions to the more marketable products. During the coking process, the feed enters the bottom of a fractionator where it is mixed with another liquid. It is then pumped through a coking heater and the temperature is raised to between 900° and 930°F (480° and 500°C). Coking takes place in two drums. It stays in one drum for 24 hours and is then moved to the second drum while decoking takes place in the first drum. A complete cycle takes about 48 hours. There are different types of coke that are produced during this cycle: sponge, needle, and shot coke. A typical coker is capable of converting low-value crude-oil material to high-value light products at the rate of more than 100,000 barrels a day.

refineries has pretty well stayed flat in recent years.

HOT-MIX: *What are the chances that imports could increase?*

LAMPTON: Well, something else is going to hit us next year: the new ultra-clean fuels. It's the mandate that started in the early 1990s. And it will finally be going into effect in October 2006. With regard to imports, there is a very serious question as to whether refineries in other countries will spend the money to make these new ultra-clean fuels. They might decide to take their products to some of the international markets—those that are growing faster than we are—instead of bringing them here. And that could put us in an interesting situation in 2006.

HOT-MIX: *Will the ultra-clean fuels have an impact on construction?*

LAMPTON: If you think diesel fuel is expensive now, just wait until the clean-fuels mandate kicks in.

HOT-MIX: *Given all of this, what words of advice would you have for producers of hot-mix asphalt?*

LAMPTON: From the contractor's standpoint, it might be a good idea to stop telling people that the price of asphalt needs to go *down*. Instead, they should probably be saying that asphalt needs to go *up* in order to preserve their industry.

HOT-MIX: *When do you think most of this will take place?*

LAMPTON: I would guess that the day of reckoning for the industry would be between now and 2010. These coker projects involve a permitting process that takes about a year. And then there's a construction phase that lasts for about two years. But once the construction phase begins, those projects are going to go forward. I would say that the next 12 months will tell us a lot about the future. Personally, I think the only way the refineries are going to be stopped from building their cokers is if the market price of asphalt comes up to level that would compete with what the cokers can do.

HOT-MIX: *Thank you for speaking with us about this topic. ▼▼*