

**The Innovation**

What began as a good idea to reduce the odor of hot mix asphalt (HMA) at the HMA plant site blossomed into an environmentally friendly solution that not only achieves its original goal, but it also addresses the construction industry need for an honest, good-neighbor product. The odor-reducing solution is called AS Cherry, and it does not hide the odor of asphalt as masking agents in the marketplace do, but it eliminates odor by eliminating fume.

Independent testing shows that, when added to liquid asphalt cement in the correct ratio, AS Cherry removes fume and odor from the HMA product. No matter where the solution is injected during the production process – at the asphalt refinery, during de-livery to the HMA plant's tank farm, during RMA mix production, or when processing recycled asphalt pavement – AS Cherry eliminates fume and odor throughout the re-mainder of the production and laydown processes, creating a more enjoyable envi-ronment for all members of the community.

**AS Cherry's Origination**

When A. J. Ronyak ran and managed the largest HMA plants in North America, he wished to devise a way to make his employer's presence less noticeable in the com-munity, a goal many potential plant owners promise to meet when obtaining a permit to do business in a particular area. That meant reducing the odor of HMA production, but the masking agents available to him were not satisfactory. Necessity is truly the mother of invention, so Mr. Ronyak set his mind on creating a solution. He experimented with adding spearmint oil to liquid asphalt until he found a ratio that literally changed the smell of the product.

Mr. Ronyak didn't stop there. By creating a formula for widespread use of his new idea, he could pave the way for all segments of the asphalt industry to reduce odors. Companies that focus on paving, production, recycling, or, more recently, asphalt re-finishing, have benefited from the use of AS Cherry in their operations.

AS Cherry Effects a Change in the Marketplace - As intimated above, the odor re-ducing solution known as "AS Cherry" eliminates the need for masking agents, which have been used to cover HMA odors in the marketplace. By developing an innovative product that not only eliminates odor and fume, but has been shown to enhance certain properties of HMA mixes, A. J. Ronyak provides the construction industry with an environmentally friendly solution to a widespread problem.

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## Asphalt Industry Members Reduce Odors at Different Stages

Keep neighbors happy with innovative ideas from industry personnel

By Sandy Lender

If people complain about any smells emanating from a hot mix asphalt (HMA) plant, the owner responds quickly. Owners don't take inconveniences to the surrounding community lightly. Let's face it, the members of the community are neighbors, and their level of comfort with the plant next door plays a role in future developments for plant owners. In fact, their comfort level could play a role in tomorrow's schedule. If odor complaints reach the right legislative official, authorities could shut your plant down for an indeterminate length of time while you work out odor reduction strategies.

To keep odors at bay, and neighbors content, plant owners have a variety of odor-reducing options available. From odor-capturing systems atop silos to sprays and masking agents applied directly to asphalt materials, plant owners can take odors out of the picture. Ross Sprovieri, president of Orchidia Labs/Flavorchem, Chicago, gives his theory behind odor reduction. "The whole theory of working out an odor counteractor, or mask, is you can trap it completely; you can chemically change it; or you can make whatever you're adding be in harmony with it to make it smell like something else."

For instance, the AS Cherry product from Asphalt Solutions, Litchfield Park, Ariz., which Orchidia Labs/Flavorchem workers helped manufacture, is an odor-reducing additive that is finding new ways into the asphalt production stream. "What we've done with the asphalt is really incredibly difficult to do," says Sprovieri. "It virtually eliminates any kind of odor coming off the asphalt, which is the goal all the time." To eliminate the odor coming off the asphalt, industry members try some of the innovative methods of introducing the odor-reducing agent into the asphalt production stream.

### Start with the source

Officials at a Fernley, Nev., asphalt terminal have purchased the AS Cherry odor reducing additive from Asphalt Solutions, Litchfield Park, Ariz., to use with liquid asphalt cement (AC) storage. The general manager describes a process they're considering for the setup. As liquid AC is delivered, via heat the liquid AC to about 230 to 240° F (110 to 116° C), then discharge the heated material into tanks. As the liquid flows to the tanks, an injection system, designed and built by the terminal's employees, injects the AS Cherry into the stream.

"We've actually set up an injection system, right on the discharge of our unloading pump," says the general manager. "The injection pump is like a pulse pump. It's set up so you can dial in the amount of material you want to inject based on flow rate on the line." His company's interest in the AS Cherry product stems from neighbor complaints. "I had heard about it (AS Cherry), and had used it in the past on smaller projects where we were trying to minimize odor."

He contacted A.J. Ronyak, proprietor of Asphalt Solutions and inventor of the AS Cherry product. "I told him we were building this facility, and were planning to look at multiple odor control systems, including deodorizers. So we set up a small injection system to blend the asphalt solution in line as we're going to tankage."

Ronyak feels that the use of the product is solving more than just immediate odor concerns at the terminal. He feels the officials are being proactive by passing the treated product along to customers. "He's taking care of any of his tank venting odor problems because he's inline injecting right off the railcars," says Ronyak. "So he's taking care of his own odor problem, plus he's passing along the good fortune of having treated liquid to his retail hot mix producers."

The general manager at the terminal sees the advantage pre-treated liquid AC offers to his customers, but says the impetus for using the AS Cherry product is reducing odor at his own facility. "We're looking at it to minimize the amount of odors that we generate at our facility," he says. "What we'd like to do is set it up where we can let the plant know that we're sending them a certain amount of material that has a certain percentage of asphalt solution in railcars, to the terminal, the AS Cherry is to be injected into the liquid as it is unloaded. First, workers it, then see if it makes any difference in their plant in terms of odor. It's going to have to be a controlled test we run to see how this is going to work. We're hoping it helps us up here, too, in terms of minimizing the amount of odors that we generate."

The terminal will consider the AS Cherry product, as well as odor-capturing methods. Officials see the importance of trying out odor-reducing methods in the asphalt production chain. "And that's why we set up the system. It's going to be a problem in the future as neighborhoods approach these asphalt facilities that have historically been out in the middle of nowhere. We are actively looking to be a good neighbor, and find solutions that will mitigate our odor issues."

### Burn without odor

Ray Schloss Jr., of Schloss Materials Co., Cleveland, Ohio, also uses the AS Cherry product in an innovative manner. His plant workers introduce the product to the waste oil used for burner fuel. Schloss explains that they add the AS Cherry product to their liquid AC supply regularly, and to their burner fuel whenever they receive a "bad load" of waste oil. He and Ronyak tell why company officials chose to try the product in the first place. "One of our plants is in a middle-class residential neighborhood, and, over the years, we've had numerous complaints about the asphalt smell," says Schloss. "He (Schloss) took it on his own initiative to add it in the oil," says Ronyak. "They thought that the reclaimed oil that they're getting for their burner fuel has got a tremendous odor," says Ronyak. Since he had done some field testing with the AS Cherry product at the burner fuel stage, Ronyak suggested Schloss workers give it a try.

Schloss explains how workers introduce it to the process. "We inject it (AS Cherry) based on tank size, usually at less than 5 gallons (19 L) per 6,000 gallons (22,712 L) of waste oil." He explains that workers add a minimum amount just to neutralize the odor. "The object is not to make your place smell like cherry," he says. "You're trying to neutralize the odors. It's not very scientific. It's just whatever your nose will bear." The results have been satisfactory. "Since doing this, we do not have any complaints any longer," says Schloss. "We have just completely wiped them out."

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