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Pollution Is Called a Byproduct of a 'Clean' Fuel

By BRENDA GOODMAN

MOUNDVILLE, Ala. — After residents of the Riverbend Farms subdivision noticed that an oily, fetid substance had begun fouling the Black Warrior River, which runs through their backyards, Mark Storey, a retired petroleum plant worker, hopped into his boat to follow it upstream to its source.

It turned out to be an old chemical factory that had been converted into [Alabama's](#) first biodiesel plant, a refinery that intended to turn soybean oil into earth-friendly fuel.

"I'm all for the plant," Mr. Storey said. "But I was really amazed that a plant like that would produce anything that could get into the river without taking the necessary precautions."

But the oily sheen on the water returned again and again, and a laboratory analysis of a sample taken in March 2007 revealed that the ribbon of oil and grease being released by the plant — it resembled Italian salad dressing — was 450 times higher than permit levels typically allow, and that it had drifted at least two miles downstream.

The spills, at the Alabama Biodiesel Corporation plant outside this city about 17 miles from Tuscaloosa, are similar to others that have come from biofuel plants in the Midwest. The discharges, which can be hazardous to birds and fish, have many people scratching their heads over the seeming incongruity of pollution from an industry that sells products with the promise of blue skies and clear streams.

"Ironic, isn't it?" said Barbara Lynch, who supervises environmental compliance inspectors for the Iowa Department of Natural Resources. "This is big business. There's a lot of money involved."

Iowa leads the nation in biofuel production, with 42 ethanol and biodiesel refineries in production and 18 more plants under construction, according to the Renewable Fuels Association. In the summer of 2006, a Cargill biodiesel plant in Iowa Falls improperly disposed of 135,000 gallons of liquid oil and grease, which ran into a stream killing hundreds of fish.

According to the National Biodiesel Board, a trade group, biodiesel is nontoxic, biodegradable and suitable for sensitive environments, but scientists say that position understates its potential environmental impact.

"They're really considered nontoxic, as you would expect," said Bruce P. Hollebone, a researcher with Environment Canada in Ottawa and one of the world's leading experts on the environmental impact of vegetable oil and glycerin spills.

"You can eat the stuff, after all," Mr. Hollebone said. "But as with most organic materials, oil and glycerin deplete the oxygen content of water very quickly, and that will suffocate fish and other organisms. And for birds, a vegetable oil spill is just as deadly as a crude oil spill."

Other states have also felt the impact.

Leanne Tippett Mosby, a deputy division director of environmental quality for the Missouri Department of

Natural Resources, said she was warned a year ago by colleagues in other states that biodiesel producers were dumping glycerin, the main byproduct of biodiesel production, contaminated with methanol, another waste product that is classified as hazardous.

Glycerin, an alcohol that is normally nontoxic, can be sold for secondary uses, but it must be cleaned first, a process that is expensive and complicated. Expanded production of biodiesel has flooded the market with excess glycerin, making it less cost-effective to clean and sell.

Ms. Tippet Mosby did not have to wait long to see the problem. In October, an anonymous caller reported that a tanker truck was dumping milky white goop into Belle Fountain Ditch, one of the many man-made channels that drain Missouri's Bootheel region. That substance turned out to be glycerin from a biodiesel plant.

In January, a grand jury indicted a Missouri businessman in the discharge, which killed at least 25,000 fish and wiped out the population of fat pocketbook mussels, an endangered species.

Back in Alabama, Nelson Brooke of Black Warrior [Riverkeeper](#), a nonprofit organization dedicated to protecting and restoring the Black Warrior River and its tributaries, received a report in September 2006 of a fish kill that stretched 20 miles downstream from Moundville. Even though Mr. Brooke said he found oil in the water around the dead fish, the state Department of Environmental Management determined that natural, seasonal changes in oxygen levels in the water could have been the culprit. The agency did not charge Alabama Biodiesel.

In August, Black Warrior Riverkeeper, in a complaint filed in Federal District Court, documented at least 24 occasions when oil was spotted in the water near the plant.

Richard Campo, vice president of Alabama Biodiesel, did not respond to requests for an interview, but Clay A. Tindal, a Tuscaloosa lawyer representing the refinery, called the suit's claims "sheer speculation, conjecture, and unsupported bald allegations." Mr. Tindal said that "for various reasons," the plant was not now producing fuel.

The company has filed a motion to dismiss the complaint on the ground that it has entered into a settlement agreement with state officials that requires it to pay a \$12,370 fine and to obtain proper discharge permits.

Don Scott, an engineer for the National Biodiesel Board, acknowledges that some producers have had problems complying with environmental rules but says those violations have been infrequent in an industry that nearly doubled in size in one year, to 160 plants in the United States at the end of 2007 from 90 plants at the end of 2006.

Mr. Scott said that the board had been working with state and environmental agencies to educate member companies and that the troubles were "growing pains."

Ms. Lynch said some of the violations were the result of an industry that was inexperienced in the manufacturing process and its wastes. But in other instances, she said, companies are skirting the permit process to get their plants up and running faster.

"Our fines are only so high," Ms. Lynch said. "It's build first, permit second."

In October 2005, the Alabama Department of Environmental Management informed Alabama Biodiesel that it would need an individual pollution discharge permit to operate, but the company never applied for one.

The company operated for more than a year without a permit and without facing any penalties from state regulators, though inspectors documented unpermitted discharges on two occasions.

For some, the troubles of the industry seem to outweigh its benefits.

"They're environmental Jimmy Swaggarts, in my opinion," said Representative Brian P. Bilbray, Republican of California, who spoke out against the \$18 billion energy package recently passed by Congress that provides tax credits for biofuels. "What is being sold as green fuel just doesn't pencil out."

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