

November 2001, Volume 70, Number 1

Learning Curve

Rebounding from a Crisis

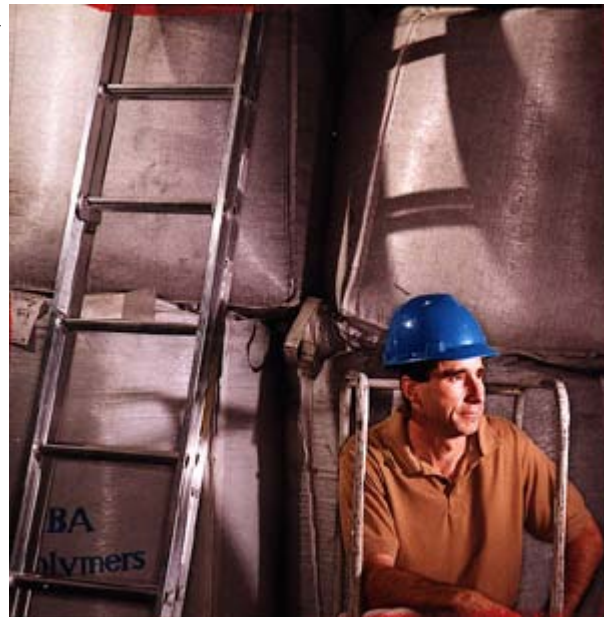
A strong corporate–community relationship helped save Mike Biddle’s plastics recycling firm after a major accident threatened to destroy the company.

By JANET ZICH

There’s a story Mike Biddle loves to tell. As a young engineer at Dow Chemical, he suggested to his boss that since Dow was producing so much plastic, it was time the company looked into ways to recycle it. His boss answered that he hadn’t hired a PHD in polymer science to worry about garbage, and that was the end of that. Or so they thought. Six months later Berkeley, Calif., outlawed polystyrene foam containers, and other communities soon followed suit. Biddle’s boss decided maybe garbage was becoming a doctoral-level problem after all.

Biddle, Sloan ’91, went on to create and head Dow’s plastics recycle research group before striking out on his own in late 1992, when Dow decided to move its Walnut Creek, Calif., office to Michigan. And while Biddle hasn’t exactly turned garbage into gold, he was well on his way until a major accident threatened to destroy his company.

Eight months after an explosion and fire shut down the line at Biddle’s Richmond, Calif., plastics recycling plant, MBA Polymers, it started up again this summer. In July, as workers hauled a bulky desk through a second-story window and laid new carpeting in the reception area, Biddle sat in a nearly bare conference room talking about his company.



CEO Mike Biddle at his plant in Richmond, Calif.
Photograph by Timothy Archibald

MBA Polymers separates different colors and types of mixed plastics so they can be remade into commercial-grade plastics. It sounds easy. “Basically, we grind them all up,” Biddle says, waving across the table at a half-dozen pint-sized, zippered plastic bags filled with trash in various degrees of pulverization. “These were computers, printers, and so forth. Most of the metal has been taken out by someone else. What you see here is being buried and burned around the world because nobody knows how to get any value out of this garbage. What we do basically is above-ground mining. We mine our plastics without having to pump oil out of the ground.”

His hand moves down the row of baggies. “We take this stuff and refine it one step further,” he says, “and then separate it into different types and colors of plastic. Then we make it into little pellets, and someone can take these pellets and make parts of 100 percent recycled plastics. We know a couple of companies that can separate simple mixes, but we don’t know anyone else in the world who can take this complicated a mixture.” Pointing to four bars of high-grade recycled plastic, each a different color, he says, “It took us eight years to develop the technology to do this and over \$16 million in investments.”

In 1992, when Dow moved, Biddle started a consulting firm, Michael Biddle and Associates. (Its initials later became the MBA in MBA Polymers.) Biddle was much more successful than he had anticipated and called on some of his old colleagues from Dow for help. One of them, Trip Allen, would later cofound MBA Polymers.

For the next few years, Biddle and his associates concentrated on one major research subject: how to recycle plastics from computers. Most of the firm’s research was funded by the American Plastics Council (APC). “We were literally paid to go around the world and figure out how to recycle plastics,” Biddle says. “I helped design a facility on the East Coast to demonstrate what we’d learned. We didn’t mind sharing that part of the technology.”

But MBA had developed, both on its own and with federal grants, more sophisticated techniques for the separation of mixed plastics. Biddle and Allen proposed that APC help the firm build a facility that would take advantage of its proprietary technology. “And that’s what formed MBA Polymers,” Biddle says.

The company received its first outside equity funding in 1999. The \$6 million would allow MBA Polymers to switch from mainly research to commercial operations. Roughly half came from angel investors, most from the San Francisco–based Band of Angels. The other \$3 million came from American Industrial Partners, a private investment partnership.

Flush with its new funds, the company was clearly on a roll. It had grown to 100 employees and brought in three senior-level managers, including **Richard McCombs**, MBA ’79, as COO and CFO. The president of American Industrial Partners, the founder of Band of Angels, and a prominent Silicon Valley lawyer signed on as directors. And so did a friend and personal investor in the company, John R. “Rick” Berthold, MBA ’65, who was director of the Executive Program for Smaller Companies at the Business School when Biddle was a Sloan Fellow.

But just three short weeks after extending its operations to three shifts a day, disaster struck. At around 2 A.M. on Oct. 26, 2000, the plant was hit by a deadly explosion, probably caused by an electrostatic charge in a grinder that ignited an accumulation of toner-cartridge dust. The blast rocked the company's warehouse and the surrounding neighborhood. One employee, a 26-year-old forklift operator, was killed. The fire and the black, acrid smoke that settled on the area required the services of 50 firefighters, sent 200 people to local medical centers, and closed 12 schools. Hundreds of neighboring refinery workers were forced inside, and toll-takers at the nearby Richmond–San Rafael Bridge were sent home for the morning. As it turned out, the fire was well contained and the level of toxic compounds in the smoke fell safely below California's Environmental Protection Agency standards. But the accident caused an estimated \$4 to \$5 million in damages to the plant, and Cal OSHA initially fined the company \$212,400, a figure that still was being negotiated when it reopened in June.



During the hard times, COO and CFO Richard McCombs, MBA '79 (here holding an armload of plastics headed for recycling), buoyed the firm by focusing on rebuilding.

Photograph by Timothy Archibald

accidents in the city or nearby; one killed four people. Another company might have hidden behind a wall of lawyers or revved up its public relations spin machine. Instead, MBA Polymers quickly and publicly offered to pay medical bills for anyone worried about the effects of smoke inhalation. Perhaps more important, the company was able to fall back on the reservoir of good will it had built up over the past few years.

“From the git-go, MBA Polymers did an outstanding job of reaching out to the community and becoming part of it,” says Sal Vaca, assistant director of Richmond's employment and training department.

Eliminating the cause of the accident was simple: The company no longer processes whole toner cartridges. That was the easy part. There were times Biddle wondered, “Are we going to get out of this?” Says McCombs: “We had to clean up, but we also had to keep people focused on rebuilding.”

Biddle persuaded his investors to keep half the employees on the payroll. But letting the other 50 people go was tough. “That was one of the hardest things I've ever had to do,” Biddle says. “At least, thanks to Richard, we were able to keep them in place for months.” McCombs negotiated with MBA Polymer's insurance company to hire the 50 for cleanup, and that kept them on somebody's payroll for a while.

Dealing with the neighborhood was another issue entirely. The residents of Richmond do not take kindly to industrial accidents. In 1999 alone there had been four major

They've invited the community into the plant for open houses, and they've taken the plant to the community. MBA Polymers serves on the local Chamber of Commerce and also sends representatives to monthly neighborhood council meetings. "Basically, I think we do what good corporations do," says McCombs. "Although I'm not sure most corporations do this."

"They've also hired well over 35 people from the community," Vaca says. Confirming this, Biddle adds: "We hire locally, sometimes from local rehabilitation programs. We try to give people a second chance." He grins at the commercial to come. "Just like we give plastics a second chance."

Biddle pauses. "You could never say the fire was a blessing, but there were some small silver linings. We were forced to step back and take that time to evaluate. We had brought Bechtel in before the fire to do test work and observe the process lines. After the fire they were able to spend more time on the line than if we had been in production. And the timeout helped accelerate our business overseas. Since we raised money the first time, the opportunity has only gotten bigger—bigger even than we projected."

There has been a market for commercial-grade recycled plastics for years, but the supply of garbage plastic to recycle has been hard to come by. Manufacturers have found it cheaper and more convenient to simply dump it. But times are changing. On April 1, new legislation took effect in Japan. Manufacturers of washing machines, refrigerators, televisions, and air conditioners became responsible for recycling the machines they manufactured. In response, the companies have banded together and built more than 30 recycling plants.

"These facilities are a dream come true for us," Biddle says. "What they do is the front end of our business. They collect it. They aggregate it. And then they shred it to recover the metals. What's left is this," he says, pointing to the first baggie in the line. "They leave off where we start. Right now, they have to burn or bury the plastic. That's very costly, and it's a not very good thing to do to the environment. So these big-name companies are very interested in getting us over to Japan as soon as possible."

The Richmond plant should be up to its previous speed before the end of the year, and Biddle sees it continuing to grow. The United States is flirting with recycling legislation on a state-by-state basis, and a number of states already have banned appliances from landfills. Several computer companies, including HP and IBM, have instituted voluntary take-backs. The European Union has mandated some recycling, and Biddle is laying the groundwork for expansion there as well as scouting a plant site in Japan. In September Biddle announced a second round of funding, led by international contract manufacturer Flextronics. The future looks good.

Biddle knows the unexpected may happen. But he also knows that sometimes predictions come true. And he sure does like to tell that story about the young engineer.

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