From the Silicon Valley / San Jose Business Journal:
http://www.bizjournals.com/sanjose/stories/2001/03/19/focus4.html

Recycling executive makes his mark with trashed computers

Silicon Valley / San Jose Business Journal - by David Bragi

Date: Sunday, March 18, 2001, 9:00pm PST

Fourteen years ago Mike Biddle noticed that, although recycling had grown into an important political issue, his industry had taken very few steps to address it.

So he approached his research director at Dow Chemical's Walnut Creek research facility, where he developed high-tech plastics for aerospace, and said that he wanted to study how to recycle plastic bottles.

The director remained unimpressed. "I didn't hire a Ph.D. in polymer science to work on garbage," he replied.

Shortly afterward, the city of Berkeley banned the use of polystyrene foam cups in cafes, restaurants and similar venues. Other communities nationwide soon followed suit, and the plastics industry woke up and smelled the coffee.

Mr. Biddle relates what happened next. "My research director actually came to me six months after I made that statement and said: `OK, now you get to prove yourself,' and let me start a plastics-recycle effort."

A few years later Dow Chemical closed down its Walnut Creek facility, and, rather than move to Texas or Michigan, Mr. Biddle started a local consulting group. His company eventually won a contract from the American Plastics Council to study how to recycle plastics from computers.

Thus, Mr. Biddle began the transformation from young scientist into recycling industry pioneer.

That contract led to Mr. Biddle and Laurence "Trip" Allen to establish **MBA Polymers** in 1994. The company, based at its 90,000-square-foot, state-of-the-art research and commercial recycling facility in Richmond, has received numerous accolades for developing new technologies for recycling high-value plastics, especially those found in computer

housings.

The privately held company is currently in its second round of financing, and has attracted the attention of both angel investors and venture capitalists.

"A lot of them are Silicon Valley entrepreneurs who made a lot of this stuff in their past and now they're happy to see someone recycling it," says Mr. Biddle, who's CEO of MBA Polymers.

A fire in the facility last year has thrown up a temporary roadblock to profitability, and the company is rebuilding.

Once mixed together, plastic products are very difficult to separate, and therein lies MBA Polymer's innovative technology.

"Most plastics recyclers want people to give them plastics that are of one type. There's a much smaller universe that can take mixed plastic. And very few that we know of can take plastics as mixed as we get them."

Raw material arrives either shredded or as whole parts, often from other recyclers that do not handle plastic. MBA Polymers then divides its production process into three overall steps.

"The first is shredding and grinding the material, and then separating out all the things that aren't plastic," he explains. "What's left are mixed plastics and sometimes other materials.

"The second is, we separate those into different types of plastic and anything that's not plastic that we didn't get in the first step. The third is we take those separated chips, the size of your fingernail or so, and we melt those into little pellets."

The pellets are then sold to molders who use them to manufacture new plastics parts. "The ideal situation is we sell it back to the same people that make the same stuff that we're recycling," Mr. Biddle says. He appears less concerned about regulatory issues than do most manufacturing executives.

On the contrary, MBA Polymers probably would benefit from a new round of recycling regulations. The United States lacks the kind of comprehensive "take-back" laws in Europe and Japan that require computer manufacturers to have a process in place to assure that their products are recycled in a sound manner.

A few laws exist on the state level, such as Massachusetts' ban on disposing of televisions and CRT displays into landfills. Some original equipment manufacturers, such as IBM and Hewlett-Packard Co., have voluntary take-back programs, according to Mr. Biddle.

"If they're not mandated, in many cases it's unlikely that the thing's going to get recycled.

So that type of legislation would help generate more plastics" for the recycling industry, he says.

A visitor to the Richmond facility can easily observe how the company's helmeted workers go about their duties with the kind professionalism that many plant managers only dream about. In fact, their line employees' strong, personal commitment to helping the environment through their jobs initially caught management by surprise.

"We didn't fully appreciate that other people want to do this for the same reason we want to," says Mr. Biddle. "The employees that work out the best here and have the best time here are the ones who want to make a difference. So we tend to try to hire people like that."

He says he is also pleased that the business community no longer automatically views environmentalism as an impediment to the free market.

"I come from big industry. So I certainly understand that fear, that if we have environmental pressures put on us we can't operate as efficiently," he says.

"I think a lot of companies now believe having good environmental practices actually saves them money in the long run."

To that end he consults with PC manufacturers that wish to design their products to be more recyclable -- which, of course, means more business for MBA Polymers. Not that his company is in danger of running out of used computer parts to grind into pellets.

"There's plenty enough to go around," says Mr. Biddle, "so we don't have to worry."

DAVID BRAGI is a freelance writer based in El Cerrito.