W.S. Dodge Oil's Anne Marie Downs with (from left) Charlie Tomlinson, Tom Downs and Mike Pearce. (Photos by Chris Colthart)

How to Get to Regulations You Can Live With

By Linda Day

When stiffer environmental regulations loom on the horizon, large companies tend to hire lawyers and file lawsuits. Little Dodge Oil also hired a lawyer, but not for the same reason. As a result, the metals manufacturing industry in Southern California is still in business, and so is Dodge Oil. This is the story of how one small company made a difference.

Founded in 1963, the eponymous W.S. Dodge Oil company was purchased by Jim Downs in 1965; when "Big Jim" Downs passed away in 2000, the company passed seamlessly his children, another lesson to the industry (more on that later).

Dodge Oil operates out of an old warehouse in Maywood, an aging WW II industrial area south of Los Angeles. The company focuses on metalworking fluids plus other lubricants, and about 80 percent of what it ships carries a Dodge label. Products go to local mom-and-pop manufacturing businesses as well as world-class manufacturers. Dodge is proud of delivering 98 percent of what they sell the next day.

The staff at Dodge all share the same open, high-ceilinged office, stacked with papers and manual ledger books that go back to the company's founding. Although all current records are processed by computer, "We still get calls where they say, 'Hey I bought something 30 years ago, and it was great — what was it?'" says Anne Marie Downs, vice president (in charge, she says, "of everything no one else wants to deal with.") "We can pull out the ledgers and find out what they bought, how much and what they paid. Here's my dad's handwriting, my mom's, my cousin's, my uncle's," she says, gesturing to a ledger's pages.

Anne Marie Downs started with the business at 14, and nearly everyone in the family has put in some time. Today brother Tom is president, and brother Dave shares vice presidential duties with Anne Marie. Anne Marie's husband, George Stevens, works in sales; the other salesman, Mike Pearce, started with the company as a teenager driving a truck and is now a Certified Lubricant Specialist and unofficial regulatory specialist. Charlie Tomlinson, 54 years in the lubricants business and 25 years with Dodge, is the resident guru. "If Charlie doesn't know about a product, it doesn't exist or it's extinct," says Anne Marie Downs. Even plant supervisors Sal Sianez and Lee Sloan each boast over 18 years in the business.

The company owns both of its facilities with no outside financing or long-term debt. "We grow organically," says Tom Downs. "We're comfortable being a Steady-Eddie. When there's a shock to the system, like 2008 and 2009, we tighten our belts and wait it out."

A regulation that wouldn't wait

Los Angeles is notorious for its smog, and for years has struggled under federal mandate to reduce emissions of volatile organic compounds (VOCs). When the California South Coast Air Quality Management District initiated a survey of metalworking fluid providers in late 2006, asking about VOC releases, Dodge recognized the threat to its existence.

"They told us that the metalworking industry was number 233 on their list of 300 potential polluters to go after," Mike Pearce says. "They knew they'd already picked the low-hanging fruit like the steel companies and refineries, and they were planning to eliminate another four tons of pollution per day from our industry. No bureaucracy ever shuts down vol-

Oil being blended at Dodge Oil (above). The company's simple six-month oven test (right) helped set a baseline for VOCs in metalworking fluids.

untarily; the AQMD claims that they have more employees for four counties than the federal EPA does for the nation as a whole!"

It was clear to Dodge that VOC regulations involving metalworking fluids could put their customers and themselves in a nasty bind. So they consulted a lawyer, Chuck Timms. He urged them to get involved from the outset instead of waiting to sue later on. Attend as many meetings and working groups as possible, he advised, and get to know all the players, not only at the AQMD but also the Board of Governors, the political appointees and the volunteers to which the AQMD reports.

"If we had not worked with South Coast AQMD, we'd be in serious trouble," says Anne Marie Downs. "The sales of many metalworking fluids could have been prohibited. Talk about surviving! It was a group project, but Dodge paid the entire bill for the lawyer."

On the lawyer's advice, Dodge also involved its customers and competitors, plus relevant trade groups. The Independent Lubricant Manufacturers Association was a indispensible player, recognizing that any regulation drawn up in California would soon affect metalworking industries across the entire country.

Other concerned trade groups included the Precision Machined Parts Association, the Precision Metalforming Association and, in particular, the Industrial Fastener Institute. The IFI helped the state regulators understand the potential economic impact: Southern California overall is the nation's largest "manufacturing state," with over 470,000 jobs in Los Angeles County alone. Three massive publically traded corporations (Alcoa, PCC and Lisi Aerospace) still produce more than 75 percent of the world's aircraft fasteners in the area. Did the AQMD really want to drive away this many jobs?

"We alerted everybody and led the fight out here," Pearce says. "I take great pride that Dodge Oil was able to do this. But without the support of all these other people, it wouldn't have happened. It was the greatest team effort I've ever been part of."

Fixing a flawed test

One of the first things that Dodge saw as the AQMD efforts unfolded was that the test it proposed for measuring VOCs was inherently flawed for metalworking oils. It was based on a well-accepted test used for paints and inks, where a sample of the fluid is heated to 275 degrees C (527 F) and injected into a gas chromatograph (GC). Paint and ink solvents separate into a few sharp individual peaks that can be analyzed by mass spectrometry.

This works fine when a sample, like paint, has only a few components and doesn't degrade at high temperatures. But for cutting oils that may have dozens of components (many of them created by the elevated temperatures), the chromatogram becomes a "humpogram": basically indecipherable. Where's the baseline? Who knows?

Pearce dug into this. "The real deciding factor soon after the first meeting was a joint visit with the AQMD to one of our largest customers, which has the biggest cutting-oil sump in the west, 130,000 gallons. The AQMD took one sample to their lab, and I took another to a lab in Torrance that has the same equipment as the AQMD and is their preferred outside GC

laboratory. The AQMD sample showed 180 grams of VOC per liter of fluid, and the Torrance sample came in at 0 grams per liter. Same fluid, same equipment, same test method!"

The temperature at which the test was run especially bothered Tom Downs and Mike Pearce. "Virtually all metalworking fluids never get above 100 degrees Fahrenheit [38 C]," Downs explains, "because it would be too hot for customers to have their hands in it. So our question was, how do you run a test that approximates real life?"

Downs and Pearce collaborated to develop such a test. They set the temperature in a little lab oven at Dodge Oil to 40 C (104 F), measured out different naphthenic based cutting oils in Petri dishes, placed them in the oven with a "do not open" sign on the oven door — and waited. Their patience was rewarded with six months of real-time evaporation data, and some surprises: The fluid based on Pale Oil 40 they thought would be fine was mostly gone, but the one using Pale Oil 100 — more the consistency of a 5W engine oil — was almost unchanged.

The data won the day, and the AQMD set about the arduous task of validating a similar thermographic analysis (TGA) test suggested by John Burke and Bob Blithe of Houghton International on behalf of ILMA. This TGA test, designed to correlate with Dodge Oil's simple six-month oven test, became the rule by which VOCs in metalworking fluids would be determined. Tom Downs says, "This test is all over the rules as 'per the Dodge evaporation study.'"

Dodge's ongoing involvement in meetings paid off too, he adds. "At a meeting to vote on the first part of the rule, when a guy from a major household lubricant manufacturer got up and started talking, a Governing Board member told him to sit down. He said, 'I don't know who you are, you didn't show up to any of my meetings!' And then he said — and this is on public record — 'But Dodge Oil, on the other hand, they came to all the meetings, and they met with me personally. We are always going to listen to what Dodge Oil has to say.' Mike and I looked at each other, like, Wow."

Another kind of survival story

Perhaps another company might have reached that same sweet moment, but credit for this regulatory success must go to Dodge Oil's ingrained culture of thoughtful planning and hands-on involvement. Those values also were evident when the family-owned business faced the transition from Big Jim Downs, the company's patriarch, to his five children — and did it without ever missing a beat. The elder Downs died suddenly in 2000 at the age of 61, at his desk on a Friday afternoon. On Saturday the business went on: no inheritance issues, no fights, no tax consequences, no going-out-of-business distress sales.

Here's a helpful checklist from Anne Marie Downs, the primary architect responsible for this success:

1. Start early, and keep the paperwork up to date. Big Jim wanted the business to go to the three children who'd been deeply involved in it, and he made financial provisions for the other two children so there would be no disagreements after his death.

2. Give portions of stock to your heirs along the way. Yeah, it's tough. And there is the cautionary tale of a father who gave away more than 50 percent of his company, only to be voted out by his children! (Big Jim made sure to hang onto 51 percent.)

3. Have your team — CPA, estate lawyer, real estate appraiser — lined up. Evaluate your property every two or three years, and plan ahead to avoid estate-tax consequences.

4. Make sure at least one of the children is listed on all relevant paperwork: checking accounts, profit-sharing plans, trusts, etc.

5. Share the value and ethics of the business. "At night, Dad would come and tell us what he wanted done when he was gone," says Anne Marie Downs. "'Do you know why that customer is important to me? Do you know how we work together? Do you know what Mike did for me 20 years ago as an employee?' That was so we could keep the spirit of the business alive."

6. If you're one of the children, share what you know, and learn all aspects of the business. A big open office might help.

7. Don't be afraid to tackle Goliath-sized issues. "We're really proud that little Dodge Oil was able to make such a difference," says Tom Downs. It proves that you don't have to slay Goliath to win the battle.

The payoff

The Dodge team agrees that the payoff for their hard work, time and money is that everyone has a metalworking fluid VOC regulation they can live with. The new rule is science-based, the annual cost of record-keeping is about $50, and best of all, everyone gets to stay in business.

"If it had gone the way it started initially, we could have been out of business," says Anne Marie Downs. "Fortunately, there were people of good will on both sides," Tom adds. "Everyone is beginning to realize that there's a balance, and we have to get back to having a real economy based on manufacturing goods that can be sold. For every dollar that comes in to one of our customers, seven dollars go out into the community. That's what creates prosperity — you can't just have an economy of services and banks and Wall Street." ▮

