



DAN FAUCHIER

“The Polluter Pays”

Boundless energy, tremendous talent, a passion for clean air.” That’s how California Air Resources Board (CARB) Chairman Alan Lloyd described Catherine Witherspoon in announcing her appointment as executive director for CARB in 2003, the board’s first woman executive officer.

“I gravitated toward doing good things for society in college at UC Santa Cruz, and in 1981, wanted to intern in government in Sacramento and found that ARB paid their student interns, so I applied and was accepted,” Witherspoon told me in a recent telephone interview.

“I was a political science major, but I was so thrilled with the work at ARB that I came back for a second internship, transferred my senior residency requirements to Sacramento State, and took chemistry and statistics courses to understand some of the science and the unique language of air quality. I fell into it and I loved it.”

Except for a year running a private consulting firm in 1998, Witherspoon has spent the last quarter century in the public sector working on air pollution issues. Her resume is like a Who’s Who of key agencies and posts: ARB legislative representative (1985-88), chief of ARB Air Quality Planning (1989-91), expert consultant to the US EPA (1995), legislative director for the South Coast Air Quality Management District (1995-97).

A sense of practical politics

Reluctant to talk about herself at first—she wanted the interview to focus on her life’s work—I was able to coax from Ms. Witherspoon some recollections of a “terrific childhood in Vermont. My law professor father was then president of Goddard College, and my mother worked in anti-poverty programs, so I grew up in a community of intellectuals and artists and was immersed in the

social movements of the 1970’s,” she told me. “My studies in political theory required intensive thinking and writing and those writing skills have aided me a lot over the years. I also have a sense of practical politics.”

And it’s the practical side of politics that has allowed her to work under Republican governors Deukmejian, Wilson (under whom she first reached the rank of career executive), Schwarzenegger and Democratic Gov. Davis. She was appointed to ARB’s highest post, executive officer, by the 11-member governing board in January 2003.

What did your sabbatical in the private sector teach you? I asked. “I became more aware of the intrinsic link between energy efficiency and the environment,” Ms. Witherspoon told me.

“Climate change is all about how much fuel we burn and how much electricity we consume—those are the two largest ‘motors’ driving climate change, so I learned we need to strive for efficiency in everything,” she said.

“However, ARB’s focus is emissions control, and only recently have we

begun collaborating with the Energy Commission on reducing petroleum dependency. ARB’s role in that exploration is to look at the impact of fuel alternatives on engine life cycle, availability of fuel types, and what vehicles might run on alternative fuels like biodiesel, which at the moment is in limited supply and is more expensive than petroleum-based diesel.

“So we’re examining policy on these issues and also working with the Legislature, where one of the bills under consideration would require some biodiesel in every gallon of diesel fuel sold in California. We’re evaluating industry’s readiness for biodiesel while the Energy Commission tackles things like volume and price,” she said.

“We’re also working on ethanol, with an emphasis on E-85 blends and in-state production, like the new plant under construction in the San Joaquin Valley” she added. “The long-term goal

CARB Q&A

In response to specific questions to CARB, we received these enlightening responses:

Q: How will CARB treat repowered equipment paid for by Carl Moyer funds when by 2010 it doesn’t meet the proposed standards?

A: The current staff proposal provides two compliance paths—fleet average emissions or Best Available Control Technology (BACT). Fleet operators may meet a fleet average particulate matter (PM) emission rate for each compliance deadline (2010, 2012, 2017 and 2020) or demonstrate that they applied BACT to each and every engine. Fleets with repowered equipment will incur lower costs in meeting the fleet average.

They are also likely to avoid high cost replacements under the BACT pathway. Carl Moyer funding is not a factor. The fleet average calculations are based on actual emissions whether the fleets received any prior funding or not.

Q: Gov. Schwarzenegger’s Executive Order S-3-05 calls for emissions reductions from Year 2000 levels. What are Year 2000 emission levels in construction?

A: Executive Order S-3-05 concerns greenhouse gas emissions like carbon dioxide. ARB’s offroad equipment rule is aimed at different pollutants; specifically, oxides of nitrogen (NOx) and particulate matter (PM). In the year 2000, ARB staff estimates that diesel construction and

Off-road diesel makes up 40% of the engines but 70% of the particulates emitted

is to use cellulosic ethanol because that's better from a greenhouse gas perspective."

Let's talk about construction equipment

Your agency is proposing a regulation that, in its first iteration, could cost the construction industry in California \$13.9 billion by 2010, according to a recent Justice & Associates study. That's an average of \$77,200 for every piece of construction equipment in the state.

"Our estimates are more in the range of \$3 billion to \$4 billion for controlling all off-road diesel sources, including construction equipment," Witherspoon injected.

"That range of cost is not surprising. There are a total of 1.2 million diesel engines in California, when you include agriculture and on-road trucks and buses, and we think it will cost about \$10 billion to clean them all up, so it's about \$3 to \$4 billion of that total and maybe a little more given the size of the equipment," she said.

"There's no question that reducing PM (particulate matter) and NOx (nitrogen oxide)—the two key elements we're targeting—will be an expensive effort. But weighing that effort against the public

No question it will be an expensive effort ... and the polluter pays.

health costs makes it a good return on investment. At least a 3 to 1 health benefit. We've calculated that 3,000 Californians a year die from exposure to diesel PM. About a quarter of that is due to the emissions from construction equipment. Add in all the asthma and missed work and school days, it's a significant impact on public health."

So how do we craft regulations that industry can afford, I wanted to know. How do we keep small contractors in business and large companies from leaving California? Will there be some public/private funding programs developed along with the regulations, I wanted to know.

"The philosophy under all environmental regulations," Witherspoon said, unequivocally, "is that the polluter pays. The one who is causing the pollution arranges its own financing, procures its own equipment modifications and then passes these costs on to everyone else in the price of goods and services. Ultimately, we all pay, but the polluter

finances the beginning costs."

But, but, but...what about Carl Moyer funds? What about the EPA Super Fund?

I was looking for some flexibility here. "What is not common," Witherspoon explained, "are grants of tax revenues up front, like the Carl Moyer Memorial Air Quality Standards Attainment Program. These are exceptions and only apply to those who take voluntary actions BEFORE regulations are adopted. And there are things like accelerated depreciation tax credits like those the Bush Administration enacted early on."

So is there maybe an economic feasibility factor in your BACT (Best Available Control Technology) approach?

"No, not in BACT," answered Witherspoon, "but there are economic considerations in the structure of the regulations and who must comply and by what date. And we consider exemptions for limited use equipment, emergency activities and very small businesses like Mom-and-Pops. We're open to de minimus thresholds where the regulation does not apply. And we are looking at the lead time it takes for compliance."

Fleet averaging for old construction equipment

"We've been a little surprised at the age of construction equipment, and we want to do more surveys on that. We've learned that unlike on-road vehicles, which turn over every few years, construction equipment can have a life of 25 to 30 years, and half the fleet can be made up of very old machines. So we're incorporating a 'fleet average' approach for each individual contractor," Witherspoon explained.

"We plan on doing fleet average emission levels that decline over time, so operators have a choice on how they go about complying. It lets people make business decisions based on least cost," she said. "We're working on some preliminary estimates in our workshops, and

Continued on page 10

mining equipment emitted approximately 332 tons per day of NOx and 21 tons per day of diesel PM (source: Diesel Risk Reduction Plan, ARB, October 2000). That represents 41% of statewide NOx and 39% of statewide diesel PM emissions for the same year.

Q: What kind of specific ongoing reporting requirements do you envision? How much, how often?

A: ARB staff is proposing that fleet owners be required to report data regarding their offroad mobile fleets to ARB beginning in 2008 and annually thereafter. That data is likely to include: owner contact information; a list of engines subject to the offroad rule; the make, model, engine family, serial number,

model year, application horsepower and identification number of each engine; and the PM control strategy applied to those engines (BACT or fleet average emissions) including a demonstration of compliance. Fleet owners will also need to provide a certification signed by a responsible official that their fleets are in compliance.

Q: Would you favor the proceeds of emissions regulations fines against contractors going into a Super Fund-type grant program instead of into the enforcement budget?

A: Penalty revenues are deposited in the State Treasury. They are not automatically returned to the ARB or to its enforcement program.

I have a sense of practical politics.

EGCA ADVOCACY REPORT

Continued from page 9

we're taking the same regulatory concepts used in other on-road diesel engine regulations and attempting to price them out for construction and mining. But we need an accurate inventory. It affects our assumptions about turnover, what tiers are in use, etc. It all inputs to the cost calculations. We're updating our preliminary assumptions with new information. We're also looking at exemptions for little-used equipment and different rules for small contractors."

And what do you consider "small"? I asked. "We don't have a definition for 'small construction contractor' yet," Witherspoon admitted. "We've used less than four vehicles in other industries, but we don't have a corollary for the construction industry yet."

I suggested 15 or 20 pieces of equipment is what the equipment makers themselves consider as small. We'll see.

Informing tighter standards at the local levels

"We're also seeing points of convergence on public policy on infrastructure, such as encouraging stakeholders who are expanding a roadway, for example, to require contractors to use the cleanest available construction equipment on that project—green contracting—and in local CEQA requirements."

I had to interject at this point that our EGCA contractors had experienced local agencies inserting unachievable requirements in developer agreements and CEQA documents, requiring tiered machines that had not even been produced yet. And I asked what Witherspoon could do to give guidance to local agencies on the pace of technology and regulation.

"We've seen that, too," she offered, "and we're doing our best to help educate local officials about what their options are and to help them avoid requirements that no one can meet. But you have to understand, our rules apply statewide, and we strive for a consistent, more structured approach."

Equipment registration and reporting

What kind of ongoing reporting requirements do you envision, I asked. "We're not planning on a registration program like we have for automobiles," Witherspoon explained. "But we are planning a mandatory reporting program for all contractors that includes what equipment you have, where it is used, and so forth. That will be needed to assess fleet averages."

Bottom line: Costs

Witherspoon summed it up, "We're going to develop regulations that reduce diesel emissions of NOx and particulate matter but that take into account the technology available, the size of fleets, and the emissions averages of fleets, so that, for example, someone owning a backhoe could select among options of a retrofit for \$2,000 to \$8,000 or re-powering for \$30,000 or complete replacement with a new backhoe for \$80,000. That would become a business decision affected by the average emissions of the contractor's entire fleet of equipment and factoring in the personal benefits of newer, more efficient technology for the contractor's own operational

We're helping local officials avoid air quality requirements that no one can meet.

efficiency—benefits like lower fuel and maintenance costs.

"In terms of what you think we'll do in the future? Look at what we've done in the past. Look at how we have crafted and implemented regulations for on-road vehicles and stationary engines. Construction and mining equipment are the next important steps in the process of cleaning up California's air."

Industry's next steps

Firmness, with an eye to fairness, was my sense of Catherine Witherspoon's approach. A commitment to clean air—which we all share—and to accelerating the pace of emissions reductions, yes, but a no-nonsense, "the polluter pays," approach.

It is up to industry to help CARB get a better equipment census, to better understand what equipment is out there and what the financial impact will be to the costs of construction—fewer expanded freeway lanes, higher prices for new homes and office space—offset, hopefully, by lower work absence costs and trimmed increases in health care costs.

It's enough to make your head spin. But somehow, through it all, the executive director of the Air Resources Board seems to have her head on straight, her eye on the goal, and her passion for clean air fully engaged in her work.

— Dan Fauchier

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We've been surprised at the age of construction equipment and want more surveys.