Why We Can Do Better than New Source Review

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The Clean Air Act's "New Source Review" program requires the installation of state-of-the-art pollution control equipment whenever a new air-polluting plant is built. The program also applies when a "modification" is made on an existing plant—in order to avoid the possibility of evasion via a series of modifications that in effect, but not in name, create a new plant.

But when, exactly, does a "modification" occur? That has become one of the most-litigated issues in environmental law. The Bush Administration proposed a safe harbor for any modification costing less than twenty percent of the plant's original cost. This bright-line rule would have increased regulatory certainty, but was also vulnerable to evasion: virtually every conceivable plant modification could somehow be broken up into pieces, and each piece squeezed into the safe harbor. The Administration proposal was essentially giving polluting plants a license to operate forever without ever having to install pollution control equipment. Accordingly, this rule was challenged by environmentalists and in March, a federal appeals court struck it down.

Litigation, however, will certainly continue—the Supreme Court has agreed to take up a New Source Review case against Duke Energy this term, and several air pollution bills pending before Congress would maintain the two-tiered regulatory structure that characterizes New Source Review.

Environmentalists have assumed that forcing polluters to install state-of-the-art pollution control equipment would be a positive thing for the environment. But in fact, New Source Review has the overall effect of discouraging firms from replacing their older, higher-polluting plants with new ones that are more efficient and pollute less. Accordingly, New Source Review may *increase* pollution over the long term.

In this article, I want to consider a more fundamental question: Can we do better than New Source Review?

GRANDFATHERING AND NEW SOURCE REVIEW

In 1977, Congress made a decision to exempt all plants then existing from new, stricter pollution regulations, "grandfathering" these plants into a set of weaker regulations. Unfortunately, this created a powerful incentive to

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keep the grandfathered plants operating, even as new and cleaner technologies emerged.

Grandfather status confers a huge advantage over potential competitors planning to build new plants. New plants are typically more efficient, but because they must add on hundreds of millions of dollars of extra equipment that the grandfathered plants need not, construction of newer, more efficient, and potentially cleaner plants is discouraged.

What does New Source Review have to do with the unfortunate practice of grandfathering? New Source Review is part and parcel of this mistake. Grandfathering necessarily requires some distinction between those that will be exempt, and those that will not. New Source Review is that dividing line. New plants and those making "major modifications" are required to install state-of-the-art pollution control technology while grandfathered plants are not.

But at some point, don't old plants simply wear out and shut down? Not necessarily. Grandfathering provides a strong incentive to keep older plants running, in order to preserve the competitive advantage conferred by grandfathered status. Thus, economists have found some empirical evidence that grandfathering has actually slowed the turnover of polluting capital in some instances.

A quick look at the electricity generating sector is sobering: Fifty-seven percent of all fossil fuel-fired electricity generating units were built before 1972. Thirty-five percent of all power plants in the U.S. are more than fifty years old; some were built as long ago as the 1920s. Power plants are built to last as much as forty years, but they are lingering far longer.

In 1990, Congress passed the Clean Air Act Amendments, which implemented an emissions trading system for sulfur dioxide pollution from power plants. Congress preserved New Source Review and grandfathering, expecting the cost of obtaining emissions permits to force many of the regulated plants to be retired—solving the lingering-plant problem "grandfathering" had created. But in the first ten years of the trading program, only seven out of the original 261 plants were, in fact, retired. Many plants were modified to further extend their useful lives, well beyond their original retirement date.

It is possible that a more stringent emissions trading system, one that allows fewer permits, will induce more retirements. President Bush's Clear Skies Act, discussed in a previous article in this journal, may accomplish that. But the Clear Skies Act, while it purports to do away with New Source Review, does not do away with grandfathering, and still subjects new plants to a "performance" standard that does not apply to existing plants. Like rival air pollution bills, Clear Skies preserves a competitive advantage for grandfathered plants, by once again offering these older plants the benefits of a laxer regulatory regime.

HOW NEW SOURCE REVIEW LESSENS THE CHANCE OF FURTHER ENVIRONMENTAL REGULATION, INCLUDING CLIMATE CHANGE LAWS

The second way that New Source Review discourages the replacement of old plants is by requiring the installation of pollution control equipment. A recent study estimated that for a medium-sized coal-fired power plant costing $600 million to build, the cost of adding pollution control technologies may be $180 million. In Department of Justice New Source Review prosecutions, the nine settlements obtained to date have required electric utilities to spend a total of $5.5 billion on pollution control projects.

Once that kind of money has been spent, the incentive is to keep the plant in use as long

as possible. What's wrong with that? The biggest problem is that pollution controls typically only address one pollutant. So while an expensive pollution control technology might reduce emissions of sulfur dioxide, it will do nothing to reduce emissions of other pollutants, such as nitrogen oxides and carbon dioxide, and it completely ignores the other environmental effects of the process, such as those of mining, processing, and transporting the coal.

Ideally, Congress would legislate to control all these effects, and firms would comply. In reality, firms will lobby strongly against such legislation to protect their already-huge investment—and that investment allows them to argue that they have spent enough.

By its nature, command-and-control pollution regulation is piecemeal and myopic. That's certainly true of New Source Review—and because of its expense, this regulatory regime makes it more costly and painful for us to recognize and address additional problems in the future.

This problem will become apparent when the U.S. finally and inevitably has to reckon with global climate change—seeking to regulate emissions of greenhouse gases such as carbon dioxide. Industries that have just spent hundreds of millions of dollars on pollution control equipment will, no doubt, fiercely resist a mandate for the installation of carbon dioxide control equipment. The best of several bad outcomes would be a massive, costly, and poorly-administered taxpayer-financed switch-over of electricity generation technologies.

The Clear Skies Act will only contribute to this problem, because it addresses only three power plant pollutants—sulfur dioxide, nitrogen oxides, and mercury—but not carbon dioxide. In this regard, rival air pollution bills that address emissions of carbon dioxide are superior.

THE NEED FOR ANOTHER APPROACH: NEW SOURCE REVIEW LITIGATION IS NOT THE ANSWER

The fundamental problem with New Source Review is that requiring polluters to install pollution control equipment forecloses other options they might have, some of which would pollute less in the long run and in fewer ways.

For example, Congress and many economists fully expected more natural gas power plants to be built in the 1990s, in light of historically low and deregulated natural gas prices, and in light of the cost of buying emissions permits for coal-fired plants. Natural gas presents many environmental advantages over coal: lower nitrogen oxides emissions, lower carbon emissions, and no mercury emissions at all. But utilities balked at the legacy costs of billions of dollars of pollution control equipment already installed. Thus, while natural gas made some inroads in the 1990s, coal remains the fuel of choice for most electric utilities.

Environmentalists hope that New Source Review will eventually force all air pollution sources to upgrade to modern, state-of-the-art pollution control technology. But this optimistic view is belied by two torturous decades of New Source Review litigation. New Source Review divides the world of polluters into those that enjoy an extremely valuable exemption and those that do not. With billions of dollars of capital at stake, there will *always* be disputes over who is on which side of the line.

And how exactly will the Justice Department enforce even an ideal and ramped-up New Source Review program? New Source Review affects an estimated 18,000 pollution sources in the United States, in industries as diverse as electricity generation, oil refining, smelting, pulp and paper milling, chemical manufacturing, and ethanol production. As long as there is

any legal ambiguity, there will be polluters that hope to fly under the radar, relying upon that ambiguity to justify their failure to install pollution control equipment.

MOVING FROM A LITIGATION FRAMEWORK, TO A MARKET APPROACH

In "When Economists Dream, They Dream of Clear Skies," Gayer, et al., argued in this journal last year that the emissions trading concept should govern the regulation of pollutants from sources such as power plants. I agree with these authors. Pollution taxes would also be a superior way of regulating pollution. Concepts such as emissions trading and pollution taxation represent an important movement away from a legalistic way of thinking about pollution control, but a stronger break from this legal tradition is necessary.

It is necessary to sweep away any vestiges of grandfathering and any form of New Source Review as a form of discrimination-by-timing. Pollution regulation should be directed at the pollution itself, regardless of who is doing the polluting.

Lawyers have traditionally thought of environmental regulation as requiring corrective action—for instance, pollution control measures like New Source Review's. A court can order a wrongdoer—that is, a polluter—to stop doing wrong, and that's that. But this way of thinking overlooks the effects of the corrective action on the offender—and its plans for the future. New Source Review visits some punishment upon some polluters, but it does nothing to encourage them to find less polluting ways to produce goods—and even, in some instances, incentivizes them to continue their polluting ways.

Some capital investment is obviously necessary for enterprises such as power generation and heavy industrial processes. But there is no reason to make the capital stock of polluting industries even less flexible than it already is. It is time for New Source Review and grandfathering to go.

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