SO_2 Emissions Proposals Pose Growth Issue

The pressing environmental policy issue of how far the Environmental Protection Agency (EPA) should go in demanding reductions in sulfur dioxide emissions from power plants has important, if not generally recognized, implications for industrial growth. Depending on how this issue is resolved, there could be more room for such growth or less of it. Indeed, EPA Administrator Douglas M. Costle, in calling recently for public comment and debate on whether full scrubbing of all SO_2 emissions should be required, observed that the more stringent the emission controls, the more flexibility states that still have relatively clean air will enjoy in fostering economic development.

Regulations issued under the Clean Air Act already are having a significant effect on industrial growth both in regions with bad pollution problems and in some of those where the air is still clean or is at least relatively so. Metropolitan Los Angeles, with its mantle of smog and pollution alerts, is a notorious example of a bad air region. In such "nonattainment" areas where federal health protection standards for ambient air quality have not been met, electric utilities or manufacturing companies that would add to the pollution load by building new plants must work out a "trade off" whereby existing pollution is reduced by a corresponding amount and then some. For instance, the Standard Oil Company of Ohio is committed to spend up to $65 million for SO_2 scrubbing equipment alone at one of the Southern California Edison Company's oil-fired generating plants as part of the price it must pay to win approval for its proposed tanker terminal and pipeline for transshipment of Alaska crude oil.

In certain other areas utilities and manufacturers are starting to elbow one another in their eagerness to get prevention of significant deterioration (PSD) permits that allocate whatever pollution "increments" are available before the threshold is reached at which no more pollution is allowed. The more SO_2 put into the air by power plants, the lower the level of sulfur emissions which can be allowed for other industrial facilities—assuming, of course, that clean air goals are not going to be compromised. "Power plants take a big bite of the clean air," Costle told reporters at a recent news conference announcing the alternative proposals for SO_2 standards.

Under the leading option proposed by EPA, an 85 percent reduction (daily average) of potential SO_2 emissions through the installation of flue gas desulfurization units would be required for all major new power plants. This is considered full scrubbing, for on a long-term basis the reduction would be expected to exceed 90 percent. Options proposed by the Department of Energy and the electric utility industry, on the other hand, would provide for reductions on a sliding scale, with essentially full scrubbing to be required only for generating plants burning high sulfur coal.

Partial scrubbing would be cheaper and, for any given level of capital investment, more power plants could be built and more electricity generated. According to one modeling study, incremental capital expenditures associated with scrubbers through the year 1990 would be $32 billion under the full scrubbing option as opposed to $19 billion under the DOE parital scrubbing option. But the same study indicates that, with full scrubbing, SO_2 emissions from new plants would, on an overall national basis, be less by a third.

Some model studies have indicated that, if midwestern utilities choose to burn high sulfur Illinois coal instead of more expensive low sulfur western coal, the level of SO_2 emissions in the Midwest might—with full scrubbing—be higher than if low sulfur coal were burned with partial scrubbing. Such speculation aside, however, in areas where competition for pollution increments is keen utilities sooner or later may find it impossible to continue expanding their generating capacity without reducing SO_2 emissions to the maximum through both full scrubbing and use of clean coal—and this regardless of what SO_2 standards EPA adopts. But, in the absence of an early mandate from the agency for full scrubbing, the utilities' adjustment to the realities of the situation could be delayed.

The struggle going on between two midwestern utilities is a good case in point. On 7 August, the Chicago office of the EPA withheld a PSD permit that would have allowed the Indianapolis Power and Light Company to build a generating station on the Ohio River near Patriot, Indiana, about 45 miles downstream from Cincinnati and 4 miles from the East Bend station operated by the Cincinnati Gas and Electric Company (CG&E).

In appealing this ruling, the Indianapolis utility has petitioned a federal appeals court not to allow the EPA to issue any other PSD permits for this part of the Ohio River Valley—a move clearly aimed at keeping CG&E from getting permits for the two additional generating units which it plans to build at East Bend. "It's simple, they're trying to protect the increment," says an industry observer.

A similar situation could be in the making in northwestern Pennsylvania where the U.S. Steel Corporation is in competition with the General Public Utilities Corporation for the right to add to the existing pollution load in Erie County. U.S. Steel wants to build a major steel mill there and General Public Utilities plans to build a large generating plant not more than 10 miles from it. An EPA regional official has indicated that if both of these facilities are built, the resulting pollution levels would, even with use of the best available control technology, probably violate the federal health or welfare standards for ambient air quality; these are the minimum standards that would have to be met even if the county were reclassified from a Class II to a Class III air quality area, where the controls applied are generally more permissive.

EPA Administrator Costle will have to keep this kind of problem in mind as he ponders which of the SO_2 standards to choose. Environmentalists such as Robert J. Rauch, an attorney with the Environmental Defense Fund, believe that if partial scrubbing is approved, this could very well hasten the coming of a political crunch over the Clean Air Act which otherwise could perhaps be avoided, at least in the near-term. This is so, Rauch says, because a partial scrubbing policy would intensify the competition within industry and among regions (pollutants can be carried hundreds of miles downwind) for pollution increments. Utility analysts themselves believe that the PSD permitting process would ultimately be controlling with respect to what pollution-control equipment is required and how many power plants can be built.—LUTHER J. CARTER

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