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Clean Air Litigation in a Restructuring Electricity World

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New York Attorney General Eliot Spitzer has taken a keen interest in the issues surrounding energy and the environment. Our Telecommunications and Energy Bureau has taken a number of aggressive steps to ensure that consumers do not bear the brunt but, rather, receive the benefits of restructuring. The Environmental Protection Bureau has focused on ensuring that our energy supply is compatible with a clean and healthy environment.

Overall, we believe that it is critical that our energy policy ensure three things: reliability, lower bills for consumers, and a clean environment. The plan to ensure these objectives has at least four elements. First, as I will discuss in more detail below, we must ensure full compliance with the Clean Air Act (CAA) and ensure that our current power supply is at least as clean as legally required. We must also ensure that any new plants or any restarted plants comply with the law and are as clean as necessary. After all, allowing excessive pollution is like creating a subsidy for dirty, inefficient power.

Second, we need new energy supplies and we should work to ensure that new plants are the best for the community, the consumer, and the environment. One approach to this is to encourage the use of renewable energy sources, such as wind and solar power. Recent studies suggest that New York State is remarkably well situated to utilize both. Because New York gets most of its sunshine during the same time as the electricity demand peaks - the hot summer days - solar power offers significant opportunities for reducing the sharp peaks that shift the entire demand curve and, therefore, shift the price. In addition, many areas, such as Long Island, have strong wind resources. Only recently an 11.5 megawatt wind farm opened in Madison, New York. Diversity in

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our energy supply can contribute to both reliability and price stability.

The third element of a balanced energy policy is the reduction of demand through efficiency investments. In the past, demand side management (DSM) programs could be required in rate hearings. The New York Public Service Commission (PSC) did this frequently. The issue we confront now is how to ensure continued efficiency investments in a restructured energy world.

Finally, we need to reform the signals that state laws send to consumers and generators. With utility profits dependent on increased sales, for example, the utilities have no incentive to reduce demand or to promote distributed generation. How can we change these regulatory signals? Similarly, are the pricing mechanisms appropriate?

While the Attorney General's office has addressed and will address all four elements of this strategy, as the state's chief law enforcement office, our focus to date has been on ensuring that existing and new power plants are in full compliance with the law.

Within this program element, our approach has been threefold. First, our office notified seventeen coal-fired power plants located in the Midwest and Mid-Atlantic regions of our intent to sue them under the New Source Review (NSR)[1] and Prevention of Significant Deterioration (PSD)[2] provisions of the CAA. At approximately the same time, the Environmental Protection Agency (EPA) indicated a similar intent and filed notices of violations and initiated numerous lawsuits. EPA is pursuing several of the same companies as we are as well as several other facilities, including those in the South and those run by the Tennessee Valley Authority (TVA), that do not have as much of an impact on New York. Following up on these notice letters, we filed several lawsuits that are now either in active litigation or negotiation. Seven other Northeastern states and several environmental organizations have joined some of these lawsuits.[3]

Second, as we made clear when we initiated the out-of-state cases, we are insisting that coal-fired power plants in New York State fully comply with the CAA. Working with the New York State Department of Environmental Conservation (NYSDEC), we

1. Clean Air Act § 111, 42 U.S.C. § 7411 (1994).

2. *Id.* §§ 160-169.

3. As of the printing of this article, we have reached an agreement in principle with two companies, Virginia Electric Power Company and Cinergy Inc. We are negotiating other settlements and proceeding with the litigation.

served document requests or notices of violation on eight New York plants. We are actively pursuing these cases as well.

Finally, we are looking into certain questions that have arisen with respect to the re-start of old, uncontrolled plants and whether these proposals are in accordance with the law. For example, did the plants undergo a NSR analysis and install appropriate controls? We are also looking into questions that have been brought to us regarding new plants and their compliance with the law. For example, did they obtain the required air pollution offsets and from whom did they obtain them? Our inquiry is complicated by our desire not to penalize new plants, all of which are much cleaner than existing plants, nor to threaten necessary energy supply increases. Below, I focus on the first of these three efforts, although the basic concepts are the same whether we are addressing in-state or out-of-state plants.

In New York, we recognized the need for aggressive action to control air pollution because of stubbornly high pollution levels and respiratory disease rates in New York City and because of increasing impacts of acid rain elsewhere. A number of federal studies from acid rain, interstate ozone transport, and coastal water quality programs indicated the severity of the problem, the inadequacy of existing solutions and, critical for this discussion, the major impact of pollutants from coal-fired power plants in upwind regions.

As we, and others, examined the issue further, it began to appear that many of these plants could be out of compliance with the CAA. The CAA structure included a basic deal: new plants would have to comply with stringent air pollution limits but old plants would not, unless they underwent substantial modification. Congress believed both that the old plants would soon be retired, and that the best time to put on pollution controls was when other construction was ongoing. As one court held, the purpose of the modification rule is to "insure that pollution control measures were to be taken at the time they are most effective — at the time of new or modified construction."[4]

Although Congress did grandfather existing sources, it intended this to be a temporary measure. Congress also provided that if any existing source made any physical or operational change resulting in increased pollution, it would be de-

4. Wisconsin Elec. Power Co. v. Reilly, 893 F.2d 901, 909 (7th Cir. 1990).

grandfathered. It would have to install aggressive pollution controls, called Best Available Control Technology (BACT).

It appeared that many power plants had indeed undergone substantial modifications without installing pollution controls. To examine this in more detail, and to identify specific plants that could be in violation, the New York Attorney General's office undertook an extensive investigation. We looked at several different publicly available sources of information regarding coal consumption, emissions, and generation.

We found the following pattern: first, decreasing coal consumption as the plant aged; second, a sharp decrease, indicating an extended outage; and third, a subsequent increase in coal consumption, generation, and pollution. For example, at Paradise, a TVA facility that EPA investigated, a sharp drop in coal consumption and generation occurred in 1983-84. It turns out that TVA did $60 million of upgrades at that time. Our investigations uncovered similar patterns at many other power plants.

After getting a rough idea of possible violators using these data sources, we examined Federal Energy Regulatory Commission records, trade journals, company web sites, and manufacturer web sites to identify specific major modifications not accompanied by new pollution controls. Manufacturers and utilities often wanted to boast of their upgrades or life extension projects. We also went to state public utility commissions to examine filings made by utilities when they sought favorable rate treatment for the upgrades. The companies would explain that certain investments were prudent as they allowed additional generation without the added cost of pollution controls.

This review gave us a great deal of detailed information that convinced us that we had found significant and clear violations of the CAA. The next step was to do something about those violations. In September 1999, we notified seventeen Midwestern plants of our intent to sue. The following month, with the NYSDEC, we sent information requests to eight New York plants. (We could demand documents from New York plants prior to litigation since we have regulatory authority in-State. It was much harder with out-of-state plants. With those plants, we either had to wait until the discovery phase of litigation to obtain company documents or negotiate to obtain copies of documents given to EPA pursuant to EPA's investigative authority.)

The plants we identified were not, in our view, outliers. They were plants that had clearly violated the CAA and EPA imple-

menting rules, as interpreted by the courts. Critical to our cases was the 1990 Seventh Circuit decision in *Wisconsin Electric Power Co. v. Reilly*, known as WEPCO.[5] The WEPCO court examined the NSR provisions of the CAA, and EPA's regulations, and set forth factors to use in interpreting the law. We kept our cases within the WEPCO analysis.

Our cases were also consistent with the decision by the EPA Environmental Appeals Board (EPA EAB), regarding the TVA plants, that came down after we started the actions.[6] EPA had served a Notice of Violation on TVA for numerous alleged CAA violations. Since both agencies are part of the federal government and generally do not sue each other, that case moved forward administratively and very quickly. In September 2000, the EPA EAB issued a long detailed decision largely consistent with WEPCO.

The CAA provides that if any facility, including a previously grandfathered one, undertakes a "major modification" that causes a "significant net emissions increase," then the facility must undergo PSD/NSR review and install BACT.[7] Both the WEPCO and TVA decisions interpreted the phrases "major modification" and "significant net emissions increase."[8] Our cases fall squarely within those decisions.

The CAA itself is quite broad. It defines a modification as "any physical change, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted."[9] There is no exception in the statute for routine activities and the courts have understood that this definition was intended to be broad. In 1979, the D.C. Circuit stated that "the provisions concerning modifications indicate that this [grandfathering] is not to constitute a perpetual immunity from all standards under the PSD program. If these plants increase pollution, they will generally need a permit."[10]

EPA, however, has decided by regulation to exempt "routine maintenance, repair and replacement" from the definition of major modification, first in 1976 in the New Source Performance

5. 893 F.2d 901 (7th Cir. 1990).

6. *In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *6 (Sept. 15, 2000).

7. Clean Air Act § 111(a)(4).

8. Wisconsin Elec. Power Co., 893 F.2d at 915; *In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *151-52.

9. Clean Air Act § 111(a)(4).

10. Alabama Power Co. v. Costle, 636 F.2d 323, 400 (D.C. Cir. 1979).

Standard program,[11] and then in 1980 in the NSR program.[12] EPA provided this exemption in order to make the program more administratively feasible. As EPA later explained, absent such an exception, the "definition of physical or operational change in [CAA] Section 7411(a)(4) could, standing alone, encompass the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a change in the way that pipe is utilized)."[13]

Note, however, that EPA's exemption was promulgated, and must be read, in light of the earlier D.C. Circuit decision that EPA's ability to exempt activities was limited to "de minimis" activity.[14] So only de minimis, routine activities could be exempted. Even this reading is arguably generous to the regulated facilities. Another D.C. Circuit decision held that, in the water pollution context, EPA could not exempt even de minimis activities from statutorily-mandated permitting requirements.[15]

EPA did not further define "routine maintenance, repair, or replacement" in its regulation.[16] Instead, it did so in its interpretive memoranda and NSR determinations sent to industry in the late 1980s.[17] This is where WEPCO and TVA come in: these proceedings affirmed these administrative interpretations, and thus gave definite shape to this "routine maintenance" exemption. With the WEPCO proceeding in 1988, and the Seventh Circuit affirmation of that decision in 1990, EPA determined that whether an activity was routine should be determined by reference to four aspects of the modification: (1) its nature and extent; (2) its purpose; (3) its frequency; and (4) its cost.[18] A decade later, the EPA EAB looked to the same four factors in the TVA decision.[19] In

11. *See* 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975).

12. *See* 43 Fed. Reg. 26,388, 26,404 (June 19, 1978) (codified at 40 C.F.R. § 52.21(b)(2)(iii) (2001)).

13. 57 Fed. Reg. 32313, 32316-9 (July 21, 1992).

14. *Alabama Power*, 636 F.2d at 355-61.

15. *See* Natural Res. Defense Council, Inc. v. Train, 510 F.2d 692 (D.C. Cir. 1974).

16. 57 Fed. Reg. 32313, 32316-9 (July 21, 1992).

17. *See, e.g.,* Letter from Lee M. Thomas, Administrator, EPA, to John W. Boston, Vice President, Wisconsin Electric Power Co. (Oct. 14, 1988) (on file with author); Memorandum from Don R. Clay, Acting Assistant Administrator for Air and Radiation, EPA, to David A. Kee, Air and Radiation Division, EPA Region V (Sept. 9, 1988) (on file with author).

18. *Wisconsin Elec. Power Co.*, 893 F.2d at 910-911.

19. *See In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *6.

those cases, the court and the EPA EAB found that the target modifications were not routine.[20]

Looking at each of these considerations in more detail, evidence regarding the nature and extent of the modification includes: (1) whether the item in question was a major component (TVA had replaced reheaters, economizers, furnace wells and other major components); (2) who performed the modification (TVA work was not performed by maintenance staff, but by outside contractors); (3) how long it took to plan and implement the modification (the WEPCO work was performed during nine month outages, rather than during normal, scheduled outages; the TVA work required extensive planning and approvals); and (4) whether the material needed was already on-site.

In examining the purpose of a modification, the WEPCO court distinguished maintenance from work intended to "extend the life expectancy" of the unit.[21] The court noted the "historical practice in the electric utility industry of replacing old plants (at the end of their useful lives) with new plants, employing improved technologies and achieving improved efficiencies."[22] The "massive like-kind replacement" at issue was intended to displace the need for a plant, and thus was a far cry from simple maintenance.[23]

Similarly, the TVA court found that the purpose of the work was life extension.[24] "All projects were classified as 'capital' rather than as 'maintenance' projects. TVA's Capitalization Policy provides such classification for projects that add tangible new assets or leave existing assets in 'better condition' than when the original asset was installed for profitable service, but defines as maintenance projects those projects that merely restore tangible assets to serviceability."[25]

The focus of the frequency factor is on practice at the plant, rather than in the industry. This was a major point of contention, and still is, with industry actors claiming that an action is routine if frequently performed throughout the overall industry. The WEPCO court, however, relied on the fact that "the renovation work items included on this application are those that would nor-

20. *See id.*; *see also Wisconsin Electric Power Co.*, 893 F.2d at 912.

21. *Wisconsin Elec. Power Co.*, 893 F.2d at 912.

22. *Id.* at 911.

23. *Id.*

24. *See In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *267.

25. *Id.* at *107.

mally occur once or twice during a unit's expected life cycle"[26] in finding that the work was not routine.[27] Similarly, the TVA court held that "although TVA introduced evidence that it and others in the industry had made similar replacements at other facilities, the evidence did not show that these replacements were other than uncommon in the lifetime of a unit."[28]

In looking at the cost factor, relevant evidence includes whether board of directors approval was required, how the amount compared to average operation and management budgets, and the absolute magnitude of the cost. In WEPCO and TVA, projects ranging in cost from $2.6 to $17 million per unit were found not to be routine.[29]

If the modification is not routine, the next step in the legal analysis is to determine if there is an emissions increase. (It is important to emphasize in these days of concern for our energy supply that the law only applies if there are increases in pollution. A power plant can make any changes and increase production all it wants without regard to NSR if there is no pollution increase.) Again, the CAA broadly refers to any change "which increases the amount of any pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted."[30] EPA narrowed the law again by requiring a "significant net" emissions increase, which it in turn defined, for NO_x and SO_2, as more than forty tons per year in attainment areas and generally less in nonattainment areas.[31]

Even this definition, however, left it unclear how to calculate the change in emissions. Without going into too much detail, and noting that industry is challenging emission increase calculation methodologies, the basic concept now for power plants is to compare pre-modification actual emissions to the actual emissions as they would be projected after the change. The past actual emissions are relatively straight-forward to determine: the highest two of the previous five years emissions, unless another period is more representative.

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26. *Wisconsin Elec. Power Co.*, 893 F.2d at 912.

27. *See id.*

28. *In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *108.

29. *Wisconsin Elec. Power Co.*, 893 F.2d 901; *In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25.

30. Clean Air Act § 111(a)(4).

31. 40 C.F.R. § 52.21(b)(2)(I).

The post-change emissions, however, should be calculated based on emissions increases that should have been projected at the time of the change looking to the post-modification emission rate (increased capacity) and the projected utilization (restored availability).[32] Moreover, in calculating these projected future actual emissions, any emission increases (at an electric generating plant) due solely to increased demand, and unrelated to the physical change, should not be included in the calculation.[33] Thus, if a company runs a plant more due to demand growth, that would not be counted as an increase so long as it could have run the plant more prior to the modification.

Even with these exceptions, we found in our preliminary investigation that the changes at issue in our cases resulted in significant emissions increases. While the analysis of emissions is still being refined in the cases under litigation as documents are being made available by defendants, in the TVA case, the EPA EAB found that emissions did increase under methods favorable to industry at all units at which violations were alleged.[34]

Putting all this together, our view was two-fold. First, the EPA regulations and memoranda, together with the WEPCO and TVA decisions did, in fact, lay out fairly clearly what was and was not required. This understanding had been well established for a decade or more, and industry was fully aware of it. Second, our cases, which all involved massive life-extension or capacity enhancing projects, often intended to avoid the need for new generation capacity that would require pollution controls, were solid and should be aggressively pursued.

Although our cases were, in our view, straightforward from the vantage point of the NSR/PSD program, there were additional complications due to the overlay of several CAA programs and the restructuring of the energy industry.

The NSR/PSD program is a technology program. It requires power plants to install technology. The acid rain program, a separate CAA mandate, among other things imposes a national cap for SO_2 emissions.[35] Each company would be allowed to emit as much SO_2 as it had allowances for. These allowances were marketable among power plants. We were faced with the possibility that,

32. However, for pre-1992 modifications, the appropriate test may be different and look to post-modification potential emissions.

33. 40 C.F.R. § 52.21(b)(33)(ii).

34. *In re* Tennessee Valley Authority, 2000 EPA App. LEXIS 25, at *127-129.

35. *See* Clean Air Act § 405(d).

without additional measures, we could succeed in requiring one plant to put on a scrubber, and then find that the plant sold the SO_2 allowances it thereby created to other plants. Net result downwind: nothing. Thus, in the litigation, we would need to retire SO_2 credits as well.

Similarly, NO_x is controlled under State Implementation Plans (SIPs). These SIPs, under the federal NO_x SIP call, will likely impose state NO_x caps. Again, if one plant installed pollution controls and reduced its NO_x emissions, it could sell, or the state could assign, those tons to another facility.

Finally, restructuring in the guise of wholesale competition has meant that companies are reluctant to incur costs that their competitors may not. It is no longer a question of getting PSC approval. Although our litigation covers much of the market, there are gaps. Also, different cases proceed at different speeds. So when negotiating with one company, we always had to keep all the others in mind.

So let me take this back to the beginning. Enforcement litigation is just one element of a balanced energy policy in a restructuring world. Turning a blind eye to pollution is a subsidy to precisely those actors that we do not want to encourage. We hope our efforts will be matched by efforts to promote efficiency and renewable power sources. And we hope that these cases will also be matched by examination of other inappropriate regulatory signals we send, and efforts to revise them.

Thank you.