

Power Plays: EPA's Role In Electric Power Generation

Law360, New York (March 04, 2013, 10:04 AM ET) -- More so than regulatory developments, inexpensive natural gas may be the most significant factor limiting the development of new coal-fired power plants and the dispatch of existing coal-fired plants. That said, environmental regulations will continue to play an important role in shaping the future of electrical generation.

Of particular importance is the United States Environmental Protection Agency's proposed rule that, for all intents and purposes, prohibits the construction of new coal-fired generation, absent a willingness to invest in relatively untested carbon capture and sequestration technology. Although unlikely, it also is possible that legislation could be passed in the next Congress that would impact one or more of the following regulatory developments (e.g., legislation that could preempt the EPA's ability to regulate coal combustion residuals in favor of the states).

Clean Air Act

Cross-State Air Pollution Rule

The EPA has again struck out in its efforts to promulgate an allowance-based regulation to reduce the interstate transport of sulfur dioxide and nitrogen oxides. In July 2011, the EPA issued the Cross-State Air Pollution Rule (CSAPR)[1], which was the agency's response to the U.S. Court of Appeals for the D.C. Circuit's 2008 ruling remanding the Clean Air Interstate Rule (CAIR). In August 2012, the D.C. Circuit vacated CSAPR in a 2-1 decision. See *EME Homer City Generation LP v. Environmental Protection Agency*, 696 F.3d 7 (D.C. Cir. 2012).

The court held that under the Clean Air Act (CAA), the EPA could not require states to reduce emissions (1) by more than their "significant contribution" to downwind air quality concerns or (2) by more than their "fair share" relative to the contributions of other states. The court ruled that the EPA, having used air quality modeling to define what a "significant contribution" was for purposes of deciding which states would be subject to an emissions reduction requirement, ignored the results of such modeling when establishing emissions caps. In the court's view, this meant that the EPA was requiring some states to shoulder more than their fair share of the burden for reducing the impact of interstate air pollution.

The court also held that states did not have an obligation to prepare their own implementation plans (SIPs) to reduce interstate air pollution until the EPA had determined (for each state) the amount of emission reductions that would be required. As a result, the EPA did not have a legal basis to issue federal implementation plans (i.e., directly applicable federal regulations that the EPA is required to promulgate after it finds that a state has failed to develop a state implementation plan) for each state subject to CSAPR when CSAPR was finalized.

As a result, the less stringent and less comprehensive Clean Air Interstate Rule will

remain in effect for the foreseeable future. Petitions to the D.C. Circuit for a rehearing en banc were denied on Jan. 24, 2013, and we do not know if the EPA or other parties supporting CSAPR will appeal the decision to the Supreme Court.

Assuming the D.C. Circuit decision stands, the EPA will have to go back to square one to determine how it will implement the CAA provision requiring states to eliminate air emissions that contribute significantly to downwind air quality problems. The decision in EME Homer City Generation may further limit the EPA's ability to develop creative air emissions trading programs to reduce air pollution under the existing confines of the Clean Air Act.

Hazardous Air Pollutants

EPA Administrator Lisa Jackson signed a final rule on Dec. 16, 2011, limiting emissions of hazardous air pollutants (HAPs) from existing and new coal- and oil-fired electrical generating units (EGUs) (the Mercury and Air Toxics rule, or MATS).[2]

The MATS rule applies to those EGUs capable of combusting more than 73 megawatt-electric (MWe) heat input. For coal-fired EGUs, the regulation establishes numerical emission limits for mercury, particulate matter (as a surrogate for toxic nonmercury metals) and hydrochloric acid (as a surrogate for toxic acid gases), although the rule also provides alternative standards for certain subcategories (for example, limits on SO₂ as an alternate to hydrochloric acid).

For oil-fired EGUs, the regulation establishes numerical limits on total metals, hydrogen chloride and hydrogen fluoride. The final regulation relies on work practice standards, rather than numerical emission limits, to control the emission of organic acid gases such as dioxin/furan and to control emissions during startup and shutdown. The rule also allows for emissions averaging among existing electrical generating units at a facility so long as the units are classified in the same subcategory. More stringent standards are established under the rule for new sources.

The MATS rule is subject to pending legal challenges filed by utilities, states and environmental groups. The utility petitioners argue that the EPA's determination in 2000 that it was "appropriate and necessary" to regulate HAPs from EGUs was flawed both procedurally and substantively.

In particular, the utility petitioners argue that the record compiled by the EPA does not support the EPA's findings that mercury, nonmetallic HAP metals and acid gas HAPs emitted by EGUs pose public health hazards; that the EPA disregarded prior interpretations that it could only regulate those HAPs emitted by EGUs that were found to be a hazard to public health rather than all HAPs emitted by EGUs; and that the EPA incorrectly determined that it was required to apply the stringent Section 112(d) "maximum achievable control technology" standard rather than more flexible alternatives. The utility petitioners further challenge specific aspects of the regulation as being substantively or procedurally defective.

In response to petitions filed by developers of proposed new EGUs, the EPA proposed revisions to its regulation on Nov. 30, 2012. Among the proposed revisions was an increase in the mercury emissions limit for high BTU coal-fired units to reflect practical issues associated with the monitoring of such emissions. The EPA has stated that it intends to finalize these revisions by March 2013, an important milestone for project developers due to the EPA's proposed New Source Performance Standards (NSPS) for greenhouse gas emissions for such units.

Greenhouse Gas New Source Performance Standards/Permitting

On April 13, 2012, the EPA published its proposed NSPS establishing carbon dioxide emissions limits from fossil fuel-fired EGUs pursuant to Section 111 of the Clean Air Act.[3] The EPA's proposal combines fossil fuel-fired electric utility steam generating units (including boilers and integrated gasification combined-cycle units) and combined

-cycle stationary gas turbines into one source category and requires new sources in this category to meet an output-based emissions standard of 1,000 pounds of CO₂ per megawatt-hour (MWh), based on a rolling 12-month average. The standard is based on the EPA's determination that the "best system of emission reduction" that has been adequately demonstrated is new natural gas-fired combined-cycled (NGCC) turbines. [4]

The EPA's proposed standard does not require the construction of NGCC units, although its analysis is based in part on the projection that between now and 2020, new coal-fired electrical generating units will not be constructed primarily because of technological developments and discoveries that have driven down the price of natural gas.

The EPA nonetheless has proposed a compliance alternative for new coal-fired or petroleum coke-fired power plants, if such plants are designed to include the construction and operation of carbon capture and storage (CCS) or equivalent systems. Such power plants will be in compliance if their emissions of CO₂ do not exceed 1,800 lb/MWh on a rolling 12-month average basis for the first 10 years of operation; beginning in the 11th year, such plants must meet an emission standard of 600 lb/MWh for each 12-month period, so that over a 30-year period, the coal- or petroleum coke-fired plant will achieve compliance with the 1,000 lb/MWh standard.

The proposed regulation only applies to new sources; it does not apply to modified, reconstructed sources or existing sources. The EPA also has stated that it does not have any intention in the next few years to propose emissions guidelines for existing EGUs pursuant to Section 111(d) of the Clean Air Act, although it will be under significant pressure from the environmental community to do so once the EPA finalizes the NSPS.

The regulation also excludes proposed coal-fired electrical generating stations that have been issued major source air construction permits as of April 13, 2012, so long as construction begins on these stations by April 13, 2013.[5] Because the developers of these plants (which are not designed to meet the proposed GHG emission limit) have substantial concerns about their ability to comply with the new source MATS limits, these developers are pushing the EPA to revise the MATS rule for new plants so that they can obtain financing and commence construction prior to the April 2013 deadline.

On the permitting front, the D.C. Circuit upheld EPA regulations that subject new or modified sources of GHG air emissions to the Prevention of Significant Deterioration (PSD) preconstruction permit program, but substantially increased the emissions thresholds that trigger an obligation to obtain a PSD permit.

In particular, the D.C. Circuit held that the EPA's determination that emissions of GHGs endanger public health and welfare was supported by the administrative record and that the petitioners challenging EPA's decision to substantially increase the thresholds triggering a PSD permit did not have standing to sue because they had not suffered an injury that could be remedied by a ruling in their favor. See *Coalition for Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. Cir. 2012). Petitions for a rehearing en banc were denied. *Coalition for Responsible Regulation v. EPA*, Nos. 09-1322 (D.C. Cir. Dec. 20, 2012).

Ozone and Particulate Matter National Ambient Air Quality Standards

An important driver of more stringent air quality regulations (including regulations such as CSAPR and CAIR) are national ambient air quality standards (NAAQS) for "criteria" pollutants, including in particular ozone and fine particulate matter. State implementation plans are required to demonstrate how they will achieve or maintain compliance with these standards.

Moreover, as standards become stricter, more areas will be considered out of compliance with such standards; as a result, owners and operators of major emission

sources must comply with more stringent requirements to construct or modify their plants, including obtaining emissions offsets to ensure that the construction or modification of a plant will improve air quality by reducing emissions overall.

In 2008, the EPA lowered the eight-hour primary and secondary ozone NAAQS from 80 parts per billion (ppb) (eight-hour average) to 75 ppb, notwithstanding that the EPA's Clean Air Scientific Advisory Committee (CASAC) recommended a standard of between 60 and 70 ppb. In 2011, the Obama administration vetoed the EPA's proposal to lower the ozone NAAQS to 70 ppb because the ozone standard is subject to statutory review again in 2013.

The EPA has been sued by environmental groups as a result of this decision. CASAC's initial policy assessment for the 2013 review has concluded that there is strong scientific justification for an ozone NAAQS between 60 and 70 ppb and there could be evidence supporting lowering the NAAQS to between 50 and 60 ppb. The EPA anticipates finalizing a new ozone NAAQS in 2014.

Until the rule signed by EPA Administrator Jackson in December 2012, the primary and secondary NAAQS for PM_{2.5}[6] were 15 micrograms per cubic meter (annual average) (established in 1997) and 35 micrograms per cubic meter (24-hour average) (established in 2006). In June 2012, as part of its review of this standard and in response to litigation over the 2006 rulemaking, the EPA proposed to retain the 24-hour average and to lower the annual PM_{2.5} standard to between 12 and 13 micrograms per cubic meter (while taking comment on a standard as low as 11 micrograms per cubic meter).[7] Pursuant to a consent decree, EPA Administrator Jackson signed a final rule on Dec. 14, 2012, that lowered the annual PM_{2.5} NAAQS to 12 micrograms per cubic meter.

Clean Water Act

Cooling Water Intake Structures

In March 2011, the EPA issued its proposed rule regulating cooling water intake structures (CWIS) for existing electrical generating and manufacturing facilities.[8] The agency was to have finalized the rule in 2012, but has reached agreement with environmental groups to extend the date to sign a final rule to June 27, 2013. In 2012, the EPA issued a notice of data availability seeking comments on alternative methods for minimizing "impingement" of aquatic organisms that would provide even more flexibility than allowed by the 2011 proposed rule.[9]

Effluent Limitations Guidelines

The EPA continues to work on revising its technology-based limitations for pollutant discharges from steam electrical generating units, last revised in 1982. The updated regulations are expected to address, among other things, wastewater pollutants arising from the operation of ash ponds and flue gas desulfurization air pollution controls, the use of which are expected to expand as a result of the air pollution control regulations discussed above.

As a result of modifications to the EPA's consent decree with the Sierra Club and Defenders of Wildlife (the most recent of which was submitted to the D.C. Circuit on Dec. 10, 2012), the agency must propose regulations by April 19, 2013, and complete action on the regulations by May 22, 2014.

Resource Conservation and Recovery Act

Coal Combustion Residuals

The EPA issued a proposal in May 2010 to regulate coal combustion residuals (CCR) generated by the combustion of coal at electrical generating facilities.[10] The agency is still evaluating data and comments received on this rule proposal and subsequent

notices of data availability and has stated that it does not contemplate finalizing a rule until 2014, although it also is fending off efforts by environmental groups and coal ash recyclers to obtain a court-ordered deadline for issuing final regulations.

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[1] Details of the Cross-State Air Pollution Rule are discussed in Skadden Insights (January 2012), "Regulatory," available at <http://www.skadden.com/insights/regulatory-0>.

[2] See 77 Fed. Reg. 9304 (Feb. 16, 2012).

[3] See 77 Fed. Reg. 22,392 (proposed Apr. 13, 2012).

[4] EPA excluded simple cycle combustion turbines from the scope of the proposed rule because such units are not designed to serve base or intermediate loads.

[5] EPA estimated that there were 15 projects that fell into this category.

[6] Particles less than 2.5 micrometers in diameter.

[7] See 77 Fed. Reg. 38,890 (June 29, 2012).

[8] See 76 Fed. Reg. 22,174 (Apr. 20, 2011).

[9] See 77 Fed. Reg. 34,315 (June 11, 2012).

[10] See 75 Fed. Reg. 35,128 (June 21, 2010).