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Climate Regulation

Practitioner Insights: Challenges Ahead for Clean Power Plan as EPA Eyes Repeal

Under President Barack Obama's administration, the Environmental Protection Agency promulgated the Clean Power Plan on Oct. 23, 2015.

The Clean Power Plan required states to regulate existing coal-fired power plants in a manner that effectively shuts some down in favor of lower-emission fuel sources such as natural gas, wind, and solar (80 Fed. Reg. 64661-964). Soon after 27 states sued the EPA over the rule, the Supreme Court issued a stay of the Clean Power Plan on Feb. 9, 2016, which remains in place today in *State of West Virginia v. EPA*. That case is held in abeyance.

President Donald Trump's administration has drafted a proposed rule to address the Clean Power Plan. The Trump administration intends to "suspend, revise, or rescind" any regulation, including the power plant standards, that "unduly burdens the development of U.S. energy resources" (82 Fed. Reg. 16329-16331; see also March 28 Exec. Order No. 13783).

On Aug. 31, 20 states and localities issued a press release notifying the EPA and the public that they support the Clean Power Plan's current compliance deadlines, which commence Sept. 6, 2018, and disagree that the Supreme Court's stay has the effect of extending the deadlines. The news release was issued in response to EPA Administrator Scott Pruitt's letter advising 47 states that they are not "expected to work towards meeting the compliance dates set in the" Clean Power Plan. The big unknown is what the Trump administration's actual proposed draft rule will state—how will it change the Clean Power Plan, what will be the direct and indirect impact on coal plants, and will it address overall emission targets and trading?

Clean Air Act Overview and Issues Raised Before regulating existing sources of pollutants, the Clean Air Act requires the EPA to:

- Establish a standard of performance for "new" sources under Section 111(b) (known as a New Source Performance Standard, or NSPS), and then

- Establish emission guidelines for "existing" sources under Section 111(d) and require states to submit plans to meet the guidelines.

Thus, in order for the Clean Power Plan—or any revised rule—to lawfully regulate "existing" sources, the EPA must first have an NSPS in effect for "new" sources.

Then, the EPA can in certain ways regulate "existing" sources within the same "new source" category of pollution.

Currently, the EPA has the companion rule for the Clean Power Plan, specifically an NSPS for power plants that the Obama administration promulgated the same day (80 Fed. Reg. 64509-660). However, that standard, like the Clean Power Plan, is currently the subject of litigation by 24 states in *State of North Dakota v. EPA*, which the court placed in abeyance.

Establishing a Best System of Emission Reduction May be Challenging for New Power Plant Standards

Prior to litigation challenging the new power plant standards and the Clean Power Plan, the EPA was required to show that the standards it established "reflect the degree of emission limitation achievable through the application of the best system of emission reduction (BSER) that the EPA has determined has been adequately demonstrated for each type of unit." The EPA's best system of emissions reduction analysis for the new power plant standards seems to lack evidence that the selected BSER reflects an emission control system that has been "adequately demonstrated" and meets other statutory requirements.

Under the NSPS for power plants, the EPA established a performance standard of 1,400 pounds of carbon dioxide per megawatt-hour of gross energy output for newly constructed electricity generating units. New sources of coal-fired electricity generating units cannot meet the 1,400-pound-per-megawatt-hour standard without also implementing carbon capture and storage, as reflected in the rule itself.

The new power plant rule specifies the use of partial carbon capture; however, Clean Air Act § 111(b)(5) prohibits the EPA from requiring any specific technology when it sets a new source performance standard. Further, Section 111(a)(1) requires that a best system of emission reduction be one that has been "adequately demonstrated" and each best system of emissions reduction must take into account the costs of achieving emission reductions. There is an extensive rulemaking record associated with the NSPS for power plants, but it does not appear to establish sufficiently that it was allowable for the EPA to impose partial carbon capture and that carbon capture itself is adequately demonstrated and cost effective.

The future of the new power plant standards is important to the Clean Power Plan or a replacement rule, if any is planned. No Clean Power Plan is permissible unless the NSPS for power plants is effective for "new sources." There appears to be no dispute that Clean Air Act § 7411(d)(1)(A) only allows the Clean Power Plan

for sources “to which a standard of performance . . . would apply if such existing source were a new source.”

Reliance on ‘Outside the Fence’ Measures

BSEER-related issues may also exist for the Clean Power Plan itself. The rule finalized a performance rate of 1,305 pounds of carbon dioxide per megawatt for coal-fired electric generating units that must be met by 2030 with interim standards applying between 2022 to 2030. Existing sources of coal-fired electric generating units cannot meet the performance rate at the facility level at this time, and the final rule does not reflect the possibility of meeting the standard by 2030. The EPA, therefore, expects that to fulfill the Clean Power Plan, states will use “outside the fence” measures to reduce emissions, by using lower-emitting natural gas to generate electricity or by zero-emitting renewable energy. One of the challenges to the Clean Power Plan raised by industry is that the EPA lacks authority to rely on “outside the fence” measures to meet the standard. Another concern is that natural gas infrastructure may not currently exist to support the Clean Power Plan goal of switching from coal to natural gas to generate electricity.

Clean Air Act § 111(d) May Not Provide Legal Authority for the Clean Power Plan

It is not clear that Clean Air Act § 111(d) provides the EPA authority to regulate sources already regulated under Section 112. *American Electric Power Co. Inc. v. Connecticut*; see also *New Jersey v. EPA* (“under EPA’s own interpretation of the section [111(d)], it cannot be used to regulate sources listed under section 112.”). Thus, if power plants are sources listed under Section 112, which they are, some legal authorities suggest the EPA is without authority to regulate any other pollutants from that source. The EPA, however, for the Clean Power Plan “reasonably interpret[ed] . . . section 111(d) to authorize the EPA to regulate CO₂ from fossil fuel-fired” power plants. Relying on Clean Air Act § 111(d) is challenging, in part, because the House and Senate passed different versions of the statute and one precludes application of Section 111(d) when a source is regulated under Section 112, while the other does not.

Keeping Clean Air Act Penalties in Mind is Important When Industry Voluntarily Reduces Emissions

In evaluating the future of the Clean Power Plan and its necessary companion rule, the new source performance standards for power plants, rulemakers should keep in mind the Clean Air Act penalty structure in an environment where, as here, industry is already voluntarily reducing emissions. Subdivisions (c)(1) and (d)(1) of Clean Air Act § 113 impose significant penalties for failures to comply with the requirements, ranging from \$25,000 to \$200,000 or greater per violation and possible imprisonment. The EPA noted in rulemaking that “owners/operators of affected EGUs are already pursuing the types of measures contemplated in this rule. Out of 404 [EGU] entities..., 178 already own [renewable energy] generating capacity...equal to 25 percent of the aggregate amounts of their affected EGU capacity.”

Thus, whatever Clean Power Plan or revised rule, if any, is implemented, it comes at a time when industry already meets certain Clean Power Plan goals. Promulgating a new Clean Power Plan would enhance the reduction of carbon dioxide, but it would also impose penalties for failures to reduce carbon dioxide to the same extent as penalties that apply to other Clean Air Act pollutants like hazardous air pollutants. Carbon di-

oxide, however, is not like other Clean Air Act pollutants that impose direct causal impacts on health.

The Pollutant—Carbon Dioxide and its Effects

“Unlike other air pollutants which are results of trace impurities in the fuel, products of incomplete or inefficient combustion, or combustion byproducts, [carbon dioxide] is an inherent product of clean, efficient combustion of fossil fuels, and therefore is an unavoidable product generated in enormous quantities, far greater than any other air pollutant,” the EPA said.

The agency had said that greenhouse gases posed a particular threat to children, the elderly and the poor and low income and minority communities would be disproportionately affected by climate change effects such as heat waves and poor air quality.

The Purpose and Rationale for the Clean Power Plan and New Plant Standards

The Clean Power Plan was described as an “important step in an essential series of long-term actions that are achieving and must continue to achieve the [greenhouse gas] emission reductions needed to address the serious threat of climate change, and constitutes a major commitment—and international leadership-by-doing—on the part of the U.S., one of the world’s largest GHG emitters.”

Under the Obama administration, the EPA used the social cost of carbon to value the climate impacts of rulemakings. The social cost of carbon shows, in dollars, the long-term damage done by a ton of carbon dioxide emissions in a given year.

The EPA estimated “the total combined climate benefits and health co-benefits for the rate-based approach to be \$3.5 to \$4.6 billion in 2020, \$18 to \$28 billion in 2025, and \$34 to \$54 billion in 2030” with benefits of between \$5.3 to \$8.1 billion in 2020, \$19 to \$29 billion in 2025, and \$32 to \$48 billion in 2030.

Trump’s March 28 executive order withdrew the use of the technical support document that was used to monetize the social benefits of the Clean Power Plan and disbanded the working group that developed the guidance document. Legislation was also introduced in June to eliminate reliance on the social cost of carbon in the future, making unclear what tools EPA will use in the future for economic analysis.

The Clean Power Plan’s Requirements are Difficult or Impossible to Achieve

Some legal commentators and scholars “contend that the Clean Power Plan violates the U.S. Constitution because it seizes authority that should be lodged in Congress and the states and runs afoul of the Due Process and Takings Clause of the Fifth Amendment by forcing power plants and the energy industry to shoulder the burden of lessening global carbon dioxide emissions” (Steven A. Weiler). The Clean Power Plan for existing power plants depends on the viability of the new source performance standards for power plants, but, as explained earlier, both rules are subject to litigation. The particular requirements of each rule, and their bases, are relevant to help explore how to address the Clean Power Plan rule.

Emission Limits in the NSPS for Power Plants are Difficult to Achieve

For new fossil fuel-fired electric utility generating units (EGUs), the EPA set a standard of performance of 1,400 pounds of carbon dioxide per megawatt hour of gross energy output. The EPA explained that the standard “can be achieved by new steam generating EGUs—including new utility boilers...through co-firing with

natural gas” or “all new steam-generating sources can implement partial-capture CCS.” Critics claim the rule effectively prohibited the construction of new coal-fired power plants, and the EPA seemed to acknowledge the concern during rulemaking, saying: “The [Energy Information Administration] modeling also projects that few, if any, new coal-fired EGUs will be built in this decade and that those that are built will have” carbon capture systems.

The costs for carbon capture are high and the technology is still developing. The EPA explained that “the costs of CO₂ capture and compression represent the largest stumbling block to widespread commercialization of CCS,” representing 90 percent of the overall costs. During rulemaking, the EPA reviewed carbon capture projects—none apparently at coal-fired plants—and concluded that “CCS projects...are helping to further develop the CCS technology.”

Due to costs, technological reasons, and other reasons, the *North Dakota v. EPA* litigation is currently challenging the new source performance standards for new power plants. On Aug. 10, the D.C. Circuit ruled on its own motion that the consolidated cases remain held in abeyance with the EPA ordered to file status reports at 90-day intervals.

Clean Power Plan Requirements are Extensive, Currently Stayed, and Some Impossible to Achieve
The Clean Power Plan finalized a performance rate of 1,305 lb carbon dioxide per megawatt hour for coal-fired EGUs, and required that each state’s plan achieve the rate as well as an EPA-determined carbon dioxide emission reduction goal for the state. Several interim deadlines for states apply. The stated goal of the Clean Power Plan was to reach a 32 percent reduction from 2005 levels by 2030. Prior to the stay of the rule, the EPA provided until Sept. 6, 2018 for submission of state or multi-state plans; required no mandatory emission reductions until 2022; and provided “a gradual application of the BSER over the 2022-2029 interim period, such that a state has substantial latitude in selecting its own emission reduction trajectory or ‘glide path’ over that period.”

In section III.A of the final Clean Power Plan rule, the EPA set out building blocks: (1) improving heat rate at coal-fired steam electricity generating units; (2) substituting less carbon-intensive generating units (e.g., replacing coal with natural gas); and (3) increasing reliance on low or zero-carbon generation sources such as solar and wind. The first building block occurs “inside the fence” of a facility, while the others occur “outside the fence.”

On Feb. 9, 2016, the U.S. Supreme court placed a stay on the Clean Power Plan “pending disposition of the applicants’ petitions for review in the United States Court of Appeals for the District of Columbia Circuit and disposition of the applicants’ petition for writ of certiorari, if such writ is sought.” In light of significant state opposition to the program, the EPA proposed a federal implementation plan to be used by EPA to ensure compliance in states that declined to submit plans under the Clean Power Plan. Following the stay, in June 2016, EPA proposed design details for the Clean Energy Incentive Program optional emission reduction program for states wishing to incentivize certain early compliance projects under the Clean Power Plan.

The Clean Power Plan finalized performance rate of 1,305 pounds of carbon dioxide per megawatt-hour “is

not achievable in practice by any conventional coal unit,” according to a March 28, 2016 “Inside the Fence” analysis by industry attorney, Eugene Trisko. Accordingly, this building block, alone, could not achieve the objectives of the Clean Power Plan. The EPA, itself, estimated that potential heat rate improvements of 2.1 percent to 4.3 percent were achievable for each of three regions in the U.S.

For the Clean Power Plan, the EPA defined BSER to include “outside the fence” emission reduction actions that could be taken throughout the electric grid, such as limiting generation from coal units while increasing the output of existing natural gas combined-cycle units, and increasing reliance on new renewable energy sources. State plans may use any or all of the broad categories or other state measures.

Rescinding or Replacing the Clean Power Plan
 Though significant issues with the Clean Power Plan and new power plant standards exist, the current administration’s desire to suspend, revise, or rescind the Clean Power Plan is not an easy task. The EPA would need to engage in notice and rulemaking to rescind or revise the rule, a process that normally takes years. The EPA would need to develop a record in defense of its decision to suspend, revise, or rescind the Clean Power Plan. To do so, the EPA administration would need to attack the basis for the Clean Power Plan or the basis for the new power plant standards or both. This task is difficult because the Obama administration’s record of proceedings for the Clean Power Plan provides multiple sources of support, spanning hundreds of pages in length. Under *FCC v. Fox Television Stations*, “[EPA] is free to [reconsider the rule] as long as “the new policy is permissible under the statute., there are good reasons for it, and . . . the agency believes it to be better.” The administration may not simply stay the rule indefinitely, a tactic that recently failed in a related carbon dioxide rulemaking procedure.

It is unclear how the EPA plans to show a better approach than the Clean Power Plan and the performance standards for new power plants, but the anticipated draft proposed rule is likely to focus partly on findings from North American Electric Reliability Corporation and the National Economic Research Associates. Relying on NERA, Trump said the Clean Power Plan could raise “electricity rates by as much as 14 percent, costing American households \$79 billion.”

NERC also identified logistical challenges to implementing the Clean Power Plan. “To begin, a large amount of coal-fired generation capacity—about 103 GW by 2020—will need to be replaced, largely by gas-fired generation,” NERC said. But additional natural gas pipeline capacity will be required in certain parts of the country to satisfy increased gas-fired generation capacity. “As an example, current and planned pipeline infrastructures in Arizona and Nevada are inadequate for handling increased natural gas demand due to the Clean Power Plan.”

Also, the economics supporting the Clean Power Plan have been criticized. Massachusetts Institute of Technology economist Robert Pindyck concluded in his 2013 analysis that all three models used by the Obama administration working group for the Clean Power Plan “have crucial flaws that make them close to useless as tools for policy analysis.” In particular, the EPA’s economic analysis, which used the social cost of carbon

factor, has been criticized for relying on a 3 percent, instead of a 7 percent, discount rate. “[W]hen changed from a 3 percent discount rate to a 5 percent discount rate, the EPA’s \$20 billion in projected climate benefits decreases to \$6.4 billion,” he said.

Finally, the Clean Power Plan has been criticized for triggering “the closure of hundreds of coal-fired power plants across the country” and is contested by labor unions. For example, the Boilermakers have stated: “Through the [Clean Power Plan], the EPA seeks to radically reshape the energy industry by forcing states to adopt plans that in effect would shut down numerous coal-fired power plants and replace them with lower-emission fuel sources, especially natural gas and renewables.”

The EPA met with union leaders in June 2017, according to the Office of Management and Budget. OMB records disclose a presentation by several labor unions on June 26, 2017, that rescinding the Clean Power Plan was “a critical step in reducing future job losses.” The labor unions proposed setting emission targets based on “best performing units,” allowing trading of emission credits (an “outside the fence” measure) to reduce costs; considering a different baseline to provide credit for past reductions of carbon dioxide; and reforming another Clean Air Act rule known as New Source Review to improve plant efficiency.

Given the administration’s stated goals and objectives, it is likely that the proposed draft rule to address

the Clean Power Plan will be based, in part, on dismantling the economic and logistical structures of the Obama administration’s rule as well as demonstrating that an alternative is necessary to prevent coal plant closures. The proposed draft rule is likely to include different emission targets and provisions for emission trading.

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