



EPA Proposes New Permitting Test for Power Plant Modifications

Linda Tsang

Legislative Attorney

September 25, 2018

In August, 2018, the U.S. Environmental Protection Agency (EPA) proposed the [Affordable Clean Energy \(ACE\) Rule](#) to address greenhouse gas (GHG) emissions from existing coal-fired power plants, replacing the Obama Administration’s [Clean Power Plan](#). (See [this companion Sidebar](#) for discussion of the proposed ACE Rule.) As part of the ACE Rule, EPA proposed a new test for determining whether [New Source Review](#) (NSR) would apply to a modification of an existing power plant. According to EPA, by requiring preconstruction permits for modifications that would increase emissions above a regulatory threshold, NSR helps to assure that new or modified industrial facilities are “as clean as possible” and “advances in pollution control occur concurrently with industrial expansion.” Currently, NSR only applies to modifications that significantly increase *annual* emissions.

Under the proposed ACE Rule, NSR would only apply to power plant modifications that would increase *hourly* pollutant emissions rates regardless of whether they would increase *annual* emissions. ([H.R. 3128](#) and [S. 2761](#) include proposals for similar NSR hourly rate applicability tests.) The proposed ACE Rule hourly emissions rate test raises legal questions regarding the scope of EPA’s discretion to define what types of modifications are subject to NSR. This Sidebar discusses EPA’s legal justification for its proposed hourly emissions rate test and legal challenges to EPA’s previous efforts to reform the NSR permitting program by limiting the modifications that would be subject to NSR.

Background on the Clean Air Act’s New Source Review Permitting Program

The CAA regulates newly constructed or modified stationary sources of air pollution, such as manufacturing facilities and power plants, through the [NSR permitting program](#) and the [New Source Performance Standards](#) (NSPSs). Under the NSR program, a permit is required before construction may begin on a new stationary source that has the potential to emit more than a specified level of regulated pollutants. A permit is also required before an existing stationary source may be modified. [Section 111\(a\)\(4\)](#) of the CAA defines “modification” as “any physical change in, or change in the method of

Congressional Research Service

7-5700

www.crs.gov

LSB10199

operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.” This statutory definition governs both NSPSs and NSR programs, which impose technology-based emission limits and other air pollution controls.

Despite sharing the same statutory definition of modification, NSPSs and NSR regulations use different tests to determine when modifications trigger further regulatory requirements. In its [NSPSs regulations](#), EPA defines modification as any physical or operational change that increases *hourly* emissions rates as expressed in kilograms per hour. In comparison, EPA’s [NSR regulations](#) define modification as any physical or operational change that results in a “significant net emissions increase” of its *annual* emissions, expressed in tons per year. An emissions increase is considered “[significant](#)” if it exceeds regulatory emissions thresholds.

Proposed Changes to the New Source Review Applicability

In the ACE Rule, EPA proposes to adopt an hourly emissions rate test to determine whether a modification to an existing power plant would trigger NSR. Currently, EPA requires an NSR permit for any physical or operational modifications to a source, which would increase its annual emissions of regulated pollutants above regulatory thresholds. While EPA would retain the annual emissions test, EPA proposes to allow states to limit NSR to modifications that increase *both* the power plant’s actual hourly emissions rate and the power plant’s annual emissions. Therefore, it would be irrelevant whether a power plant modification would increase annual emissions (tons per year) if the modification did not also increase the power plant’s hourly emissions rates (pounds per hour) beyond the regulatory threshold. EPA recognizes that a modification to improve a power plant’s efficiency could increase its annual emissions (due to increased annual production) without increasing its hourly rate of emissions. However, EPA argues that reducing NSR permitting costs and burdens would promote efficiency upgrades to power plants, which, in turn, could reduce sector-wide emissions.

Prior to the proposed ACE Rule, EPA’s interpretation of “modification” under the NSR program had been subject to various legal challenges. In 2007, the Supreme Court in [Environmental Defense v. Duke Energy Corp.](#) held that EPA could not interpret the NSR regulatory definition of “modification” to incorporate the NSPSs hourly emissions rate test for identifying “modifications.” The Court determined that the NSR regulations define a “modification” in terms of an increase in the actual *annual* emissions, not an increase in the *hourly* emission rate.

Since the *Duke Energy* decision, stakeholders have debated whether the CAA allows EPA to revise the NSR regulatory definition of modification to incorporate explicitly the hourly emissions rate test used for NSPSs. EPA argues that the Supreme Court’s decision in *Duke Energy* does not prevent the Agency from revising its NSR regulatory definition of “modification” to incorporate an hourly rate test similar to the test used for NSPSs. The Agency contends that it has broad discretion to do so because the CAA is silent on how EPA should calculate emissions increases from modifications for both the NSR and NSPSs programs. After the *Duke Energy* decision, in 2007, EPA [proposed](#) (but did not finalize) an hourly emissions rate test to determine when power plant modifications would trigger NSR permitting requirements.

Some [commentators](#), who opposed the 2007 proposal, argued that previous [court opinions](#) require EPA to measure increases in actual emissions (i.e., total pollutants emitted annually), not the rate at which pollutants are emitted. They claim that an hourly emissions rate test creates an unauthorized exemption to NSR that is similar to EPA’s previous attempts to create a regulatory exemption for pollution control modifications, which the U.S. Court of Appeals for the District of Columbia Circuit vacated in [New York v. EPA](#). In that case, the court held that EPA lacked authority to exempt from NSR “clean units” that had previously upgraded pollution control technology, concluding that Congress intended to apply NSR to modifications that increase actual emissions regardless of a source’s “clean unit” status. The court also

vacated EPA's NSR exemption for pollution control projects that increased emissions of other pollutants on the grounds that a significant increase in emissions of any regulated pollutant is subject to NSR. EPA claims that its proposed hourly emissions rate test is consistent with *New York* because the EPA has discretion to apply an hourly emissions rate test so long as it is based on increases of actual emissions emitted on an hourly basis.

Next Steps

EPA proposes that the hourly emissions rate test would apply to all power plant modifications for states that choose to adopt the new NSR hourly emissions rate test. EPA seeks comments on whether to limit the test's applicability to power plants seeking to improve their heat rate to comply with new emission standards established by states under the ACE Rule. EPA announced that it will accept comments on the hourly emissions rate test as part of the [proposed ACE Rule](#) until October 30, 2018.

Some Members of Congress may consider submitting comments on EPA's proposed hourly emissions rate test based on their interest in [reforming EPA's NSR program](#). Recent bills ([H.R. 3128](#) and in [S. 2761](#)) propose to amend the CAA by requiring NSR permits only if a modification would increase the maximum achievable hourly emissions rate above (1) the source's original design capacity, or (2) the hourly emissions rate actually achieved during the 10-year period preceding the modification. These bills would not require sources to determine if the modifications would increase total annual emissions.
