UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

Case No. 13-3105/14-3479

ST. MARYS CEMENT INC. (U.S.)

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Respondent.

PETITIONER ST. MARYS CEMENT INC. (U.S.)'S BRIEF

Petitions for Review of Final Actions of the United States Environmental Protection Agency

September 22, 2014

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ORAL ARGUMENT REQUESTED

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

Disclosure of Corporate Affiliations and Financial Interest

Sixth Circuit
Case Number: 13-3105/14-3479 Case Name: St. Marys Cement Inc. v. EPA

Name of counsel: Fredrick J. Dindoffer

Pursuant to 6th Cir. R. 26.1, St. Marys Cement Inc. (U.S.)
Name of Party

makes the following disclosure:

1. Is said party a subsidiary or affiliate of a publicly owned corporation? If Yes, list below the identity of the parent corporation or affiliate and the relationship between it and the named party:

No.

2. Is there a publicly owned corporation, not a party to the appeal, that has a financial interest in the outcome? If yes, list the identity of such corporation and the nature of the financial interest:

No.

CERTIFICATE OF SERVICE

I certify that on September 22, 2014 the foregoing document was served on all parties or their counsel of record through the CM/ECF system if they are registered users or, if they are not, by placing a true and correct copy in the United States mail, postage prepaid, to their address of record.

s/ Fredrick J. Dindoffer
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This statement is filed twice: when the appeal is initially opened and later, in the principal briefs, immediately preceding the table of contents. See 6th Cir. R. 26.1 on page 2 of this form.

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STATEMENT IN SUPPORT OF ORAL ARGUMENT

Petitioner St. Marys Cement Inc. (U.S.) requests that the Court hold oral argument on this matter. This matter involves a challenge to the United States Environmental Protection Agency's application of the Clean Air Act, 42 U.S.C. § 7401 et seq., and the agency's implementing regulations. The Court has not previously addressed the issues presented. This matter will likely have a substantial impact upon the public, the regulated community, and the implementation of the Clean Air Act.

JURISDICTIONAL STATEMENT

The Court has jurisdiction over this consolidated matter under Section 307(b) of the Clean Air Act, 42 U.S.C. § 7607(b) and Rule 15 of the Federal Rules of Appellate Procedure, Fed. R. App. P. 15. St. Marys Cement Inc. (U.S.) petitions the Court to review the United States Environmental Protection Agency's (EPA) final rule, published at 77 Fed. Reg. 71533 on December 3, 2012, imposing a Federal Implementation Plan under the regional haze provisions of the Clean Air Act, 42 U.S.C. §§ 7491-7492, on St. Marys' Portland cement plant in Charlevoix, Michigan. St. Marys also petitions the Court to review EPA's final determination, published at 79 Fed. Reg. 15119 on March 18, 2014, denying St. Marys' petition for reconsideration of EPA's Federal Implementation Plan. The Petitions were timely because they were filed on January 29, 2013 and May 16, 2014, within 60 days after the date of EPA's December 3, 2012 and March 18, 2014 final actions, respectively.

STATEMENT OF ISSUES PRESENTED

1. Section 169A of the Clean Air Act requires certain current Portland cement plants to meet emissions limits reflecting use of Best Available Retrofit Technology (BART) to address regional haze impairment, but only if they were "in existence" on August 7, 1977 (i.e., "BART-eligible"). EPA regulations provide that if a plant was "reconstructed" after August 7, 1977 then it was not in existence on August 7, 1977 and therefore is not subject to the BART limits (i.e., it is not BART-eligible). Must the BART emissions limits that EPA imposed on St. Marys' cement plant in Charlevoix, Michigan be vacated where the plant was reconstructed after August 7, 1977?

2. Section 169A of the Clean Air Act and EPA's regulations require that a BART emissions limit be based on a case-by-case consideration of six factors, including a determination of the effectiveness of available technology in the context of a particular plant's design and operational features. Even if St. Marys' Charlevoix plant was BART-eligible, must EPA's BART NOx emissions limits be vacated where actual plant-specific test data and design limitations demonstrate that the control system EPA proposed would not achieve those limits?

STATEMENT OF THE CASE

St. Marys Cement Inc. (U.S.) owns and operates a Portland cement manufacturing plant in Charlevoix, Michigan. This case involves the United States Environmental Protection Agency's (EPA) decision to impose emissions limits on the Charlevoix plant under section 169A of the Clean Air Act (CAA), 42 U.S.C. § 7491, which addresses visibility protection.

I. History Of Charlevoix Plant Operations, 1979 Reconstruction, And The Clean Air Act.

Most of the relevant history of the development, construction, and operation of the Charlevoix plant occurred from 1965 – 1979 (about 35 – 50 years ago). St. Marys had no involvement in those activities because it acquired the Charlevoix plant in 2005. A.R. No. 45, Appx. at 479. St. Marys obtained the facts about the plant that were provided to EPA during the challenged rulemaking by investigating the permitting and operational history of the Charlevoix plant and the related public records. This case also involves intertwined terms-of-art contained in the CAA and its regulations, which have developed over the last 45 years and affect the instant challenged rulemaking. St. Marys has tried to indicate where statutory or regulatory requirements differ today from what they were at the time when specific material events occurred.

A. 1967: Charlevoix Plant's Wet Process Kiln Begins Operation.

In 1967, Medusa Cement Company completed two years of construction and began operating a new Wet Process cement kiln in Charlevoix, at a cost of $25 million. *Id*. at 532. At this time, Congress had not yet enacted the modern-day CAA.

The Wet Process was the most common method of cement making at the time. The main component was a 600-foot long kiln, which is a giant, horizontal rotating steel tube (about 18.5 feet in diameter), lined with fire brick. A.R. No. 11, Appx. at 427. The kiln operated on a tilt to allow a wet slurry of raw materials inserted at the top to progress down to the bottom where the final dry cement "clinker" dropped out. A.R. No. 10, Appx. at 376-377. As the slurry entered the top of the kiln it was subjected to high heat. *Id*. As the material moved downward through the kiln, the heat first evaporated water from the slurry, and then caused the basic cement-making chemical reaction (called calcining) to occur. *Id*.

In the mid-1960s, numerous other cement manufacturers in the U.S. also employed the Wet Process and many continue to use that process even today. A.R. No. 11, Appx. at 429. The Wet Process method typically uses more heat, resulting in greater emissions of nitrous oxides (NOx) when compared to the Dry Process. 77 Fed. Reg. 71533, 71538 (Dec. 3, 2012); A.R. No. 2, Appx. at 6. NOx emissions

from the Wet Process typically were approximately 10 pounds per ton of cement clinker produced. A.R. No. 11, Appx. at 424.

B. 1970-1976: Congress Passes Clean Air Act And EPA Promulgates Implementing Regulations.

On December 31, 1970, Congress passed the Clean Air Amendments of 1970. Pub. L. No. 91-604; 84 Stat. 1676. Although these were technically amendments to the existing CAA, they contained the basic framework for the modern federal scheme for regulating air pollution and are commonly referred to simply as the Clean Air Act. In the 1970 act, Congress established a cooperative federalism approach whereby EPA set National Ambient Air Quality Standards (NAAQS) for certain air pollutants and the States prepared State Implementation Plans (SIPs) containing emissions limitations to ensure that the NAAQS were met. 42 U.S.C. §§ 7409-7410.

The 1970 act also directed EPA to establish performance standards for new stationary sources of air pollution, known as New Source Performance Standards (NSPS). 42 U.S.C. § 7411. The NSPS are emissions limitations based on application of the best system of emissions reduction that has been "adequately demonstrated" for a particular source category. *Id* § 7411(a)(1). The statute defined "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant." *Id*. § 7411(a)(3). Only those sources constructed or modified after an applicable NSPS is proposed are required to comply with the

NSPS. *Id*. § 7411(a)(2), (e). In other words, the statute exempts (or "grandfathers") previously existing sources from having to meet the NSPS emissions limits unless and until they are "modified," which is defined as a change at a source resulting in an increase in emissions of any air pollutant or the emission of an air pollutant not previously emitted. *Id*. § 7411(a)(4).

In its NSPS regulations, EPA created the term "affected facility." An "affected facility" is defined as any piece of equipment or "apparatus" located at a stationary source to which an NSPS is applicable. 40 C.F.R. § 60.2. Examples of "facilities" at Portland cements plants are the kiln and the clinker cooler.

EPA promulgated the first set of NSPS applicable to "affected facilities" at Portland cement plants on December 23, 1971. 36 Fed. Reg. 24876 (Dec. 23, 1971) EPA subsequently revised the Portland cement plant NSPS and, as of 1977, the following emissions limits applied to new or modified "facilities" at cement plants:

- Kiln:
    - 0.30 pounds of particulate matter (PM) per ton of feed;
    - 20% opacity.
- Clinker cooler:
    - 0.10 pounds of PM per ton of feed;
    - 10% opacity.
- Other affected facility:

- 10% opacity.

See 39 Fed. Reg. 20790 (Jun. 14, 1974); 39 Fed. Reg. 39872 (Nov. 12, 1974).

Because the kiln and clinker cooler at the Charlevoix plant were built before EPA proposed any Portland cement NSPS, they were considered "existing facilities" and therefore exempt from these emissions limits.

As part of its 1975 NSPS regulations, EPA created the concept of "reconstruction" in order to subject a broader group of sources and their components to stringent NSPS emissions limits that typically apply only to entirely "new" sources. 40 Fed. Reg. 58416, 58417 (Dec. 16, 1975). Although the term "reconstruction" does not appear in the NSPS provisions of the CAA, EPA stated that it created the term to "prevent circumvention of the law" by "recogniz[ing] that replacement of many of the components of a facility can be substantially equivalent to totally replacing it at the end of its useful life with a newly constructed 'affected facility.'" *Id*. EPA defined reconstruction as follows:

> The replacement [of components] of an existing facility to such an extent that: (1) the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and (2) it is technologically and economically feasible to meet the applicable standards set forth in this part.

40 C.F.R. § 60.15(b) (40 Fed. Reg. at 58420) (bracketed words added by later amendment).

When an "existing facility" is reconstructed, it becomes subject to the NSPS emissions limits, even if there would be no resulting increase in emissions. *Id*. § 60.15(a). In fact, if an "existing facility" is reconstructed, the NSPS emissions limits would be applied even if the emissions were reduced. *Id*.

This distinguishes a "reconstruction" from a "modification" to a facility. To be regulated as a modification, a change in an existing facility must cause an emissions increase. *ASARCO Inc. v. EPA*, 578 F.2d 319, 328 (D.C. Cir. 1978). As one court observed, "the reconstruction regulation represents an abrupt departure from the established statutory scheme that defined new sources and the applicability of the New Source Performance Standards." *United States v. Narragansett Imp. Co.*, 571 F. Supp. 688, 696 (D.R.I. 1983).

In 1972, a court ordered EPA to require the States to prevent "significant deterioration" of air quality in clean air areas, i.e., those areas of the country where the air quality was at or better than the NAAQS concentration levels. *Sierra Club v. Ruckelshaus*, 344 F. Supp. 253, 257 (D.D.C. 1972) *aff'd*, 1972 WL 2725 (D.C. Cir. Nov. 1, 1972). The court reached this conclusion despite the fact that no statutory provision explicitly prohibited States from allowing air quality to deteriorate to the NAAQS. *See Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 471; 124 S.Ct. 983 (2004).

As a result of that decision, in 1974 EPA promulgated the first set of regulations to "prevent significant deterioration" of air quality (known as "PSD"). 39 Fed. Reg. 42510 (Dec. 5, 1974). The PSD program would allow new or modified sources to increase emissions in clean-air areas only up to certain limits, known as "increments." *Alabama Power Co. v. Costle*, 636 F.2d 323, 347 (D.C. Cir. 1979). To insure compliance with this program, States required new or modified sources to obtain preconstruction permits. 40 C.F.R. § 52.21(d) (1974). The preconstruction permit had to contain emissions limitations reflecting application of "best available control technology" (BACT) for emissions of two pollutants: PM and sulfur dioxide (SO_2). *Id*. § 52.21(d)(2)(ii) (1974). If the proposed source's emissions were subject to an NSPS for one of these pollutants, then BACT was the same as the NSPS emissions limit. *Id*. § 52.01(f) (1974). If there was no applicable NSPS, BACT had to be determined by the permitting authority on a case-by-case basis. *Id*.

The PSD requirements did not apply to a project that would qualify as a reconstruction under the NSPS definition unless the project caused an emissions increase. *See* 39 Fed. Reg. at 42516).[1] This reflected the fact that "Congress

[1] Although a later version of the PSD regulations would have applied the PSD preconstruction requirements to reconstructions, regardless of any change in emissions, these regulations were vacated in part by the D.C. Circuit. *Cf.* 43 Fed. Reg. 26388, 26404 (Jun. 19, 1978); *Alabama Power Co.*, 636 F.2d at 323. In response to *Alabama Power*, EPA amended its PSD regulations and deleted the

wished to apply the [PSD] permit process…only where industrial changes might increase pollution in an area, not where an existing plant changed its operations in ways that produced no pollution increase." *Alabama Power Co.*, 636 F.2d at 401. As EPA later explained:

> we decided against applying PSD to ''reconstruction,'' even of entire sources, on the grounds that, as to existing sources that would not otherwise be subjected to PSD review as a major modification (*i.e.*, such source would not cause a significant net emissions increase), changes that had no emission consequences should not be subject to PSD regardless of their magnitude.

67 Fed. Reg. 80186, 80194 (Dec. 31, 2002).

C. 1977: Congress Amends The CAA And Later Medusa Applies For A Permit To Change The Charlevoix Plant.

1. The 1977 Clean Air Act Amendments Create The Regional Haze BART Program.

On August 7, 1977, Congress amended the CAA. Public Law 95-95, 91 Stat. 685. One of the central features of the amendments was to codify and refine EPA's existing PSD program. 42 U.S.C. § 7470 et seq., 91 Stat. at 731. The 1977 amendments also created the regional haze program at issue in this case, which was designed to protect visibility at certain national parks and wildlife areas. 42 U.S.C. § 7491 et seq., 91 Stat. at 742. EPA was directed to require States to impose best available retrofit technology (BART) emissions limits on certain stationary

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requirement for PSD review of reconstructions. 45 Fed. Reg. 52676, 52703 (Aug. 7, 1980).

sources that were likely to cause or contribute to visibility impairment, but only if such a source was in existence on August 7 1977 but not in operation prior to August 7, 1962. *Id*. at § 7491(b)(2)(A). Congress also directed EPA to "provide guidelines to the States…on appropriate techniques and methods for implementing" the visibility program. *Id*. § 7491(b)(1).

EPA did not promulgate regulations directing the States to implement the regional haze requirements until 22 years later, in 1999. *See Amer. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 3-4 (D.C. Cir. 2002); 64 Fed. Reg. 35,714 (Jul. 1, 1999). EPA did not amend its regional haze rule and promulgate the required guidelines until 2005, 28 years after they were required by the 1977 amendments to the CAA. 70 Fed. Reg. 39104 (Jul. 6, 2005).

2. The New Charlevoix Plant Permit Application

About three months after the CAA was amended, on November 3, 1977, Medusa submitted an application for a permit to replace the Charlevoix Wet Process cement manufacturing operation with a new Flash Calcining Dry Process. A.R. No. 45, Appx. at 491. Medusa's permit application to the State argued that the project would cost $49 million (in 1978 dollars), while only 10 years earlier the entire original plant construction had cost $25 million. *Id*. at 493, 532. Medusa submitted the application to the State because EPA had delegated authority to Michigan to issue permits under the CAA. The new Flash Calcining Dry Process

was expected to be more "economical, cleaner and more odor free than the wet process" by reducing emissions and using less fuel, while at the same time doubling production. *Id*. at 532. Unlike the prior Wet Process, the main calcining reactions in the Flash Calcining Dry Process would not occur in the kiln. Instead, they would occur in a huge new 280-foot tall tower before the material entered the kiln. *Id*. at 493, 528, 532. Because the calcining would now occur before the mix of materials entered the kiln, a much shorter kiln was adequate, and so the kiln was reduced by 250 feet in length. A.R. No. 11, Appx. at 427. Most of the emissions now would be created by a new facility (comprised of the new Flash Calciner and shorter kiln) and would be exhausted from a new stack location. A.R. No. 45, Appx. at 495.

Because Medusa projected that emissions from the Charlevoix flash calciner/kiln and clinker cooler would not increase as a result of the project (and in fact would be substantially reduced) the flash calciner/kiln and clinker cooler were not subject to stringent NSPS emissions limitations as "modifications." 40 C.F.R. § 60.14. But when Medusa proposed the project, the State raised the question of whether the flash calciner/kiln and clinker cooler would be subject to NSPS emissions limits as "reconstructions." A.R. No. 45, Appx. at 491. Medusa asserted in its permit cover letter that these emissions units would not be "reconstructed":

> It should be noted that each cost comparison clearly demonstrates that the fixed capital cost of the converted kiln and cooler components

> does not exceed 50 percent of the fixed capital cost that would be required to construct comparable entirely new kiln and cooler facilities. Therefore, the proposed conversion and expansion of our Charlevoix plant does not constitute "reconstruction" and the existing Charlevoix plant facilities which are the subject of this Application do not become "affected facilities" under 40 CFR, Section 60.15(a).

Id.

If Medusa's view prevailed, the Charlevoix plant would continue to be treated as an "existing source" and therefore exempt from NSPS; if it lost, the plant would be treated as a "new source" under the CAA and would be subject to NSPS emissions limits.

D. The February 21, 1978 Permit

The State disagreed with Medusa's position and treated the Charlevoix plant as a new source in the February, 1978 permit to install.[2] The permit contained several provisions that refer to compliance with the CAA requirements for new sources. Specifically, "Special Conditions" 12, 13, 14 and 17 all required the plant to comply with the then-applicable NSPS limits. *Id*. at 495. PM emissions limits were set for the kiln and preheater (0.30 pounds per ton of dry feed) and for the clinker cooler (0.10 pounds per ton of dry feed). *Id.*; 36 Fed. Reg. at 24880; 39 Fed. Reg. at 20793; 39 Fed. Reg. at 39874. The permit provisions stated that these were "based on the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart F," i.e., the NSPS. A.R. No. 45, Appx. at 495. The permit

[2] The State subsequently revised the permit on May 15, 1979. A.R. No. 45, Appx. at 494.

also contained an emissions limit for SO_2 of 250 pounds per hour, which was more stringent than BACT SO_2 limits applied to other Portland cement plants permitted around the same time. A.R. No. 42, Appx. 591-616.[3]

The Staff Activity Report that the State created when evaluating Medusa's application noted that the State conducted a "dispersion analysis" and concluded that ambient concentrations of all pollutants "will be significantly less than the existing concentrations due to the large reduction in the emissions of these pollutants." A.R. No. 45, Appx. at 529. The report further concluded that "the installation of the proposed equipment will not have a significant impact on maintaining air quality standards nor cause substantial deterioration of the air quality." *Id*.

Actual construction of the changes to the plant began later in 1978. *Id*. at 493. The new Flash Calciner Dry Process equipment and structures were constructed alongside the existing plant while it continued to run. *Id.* at 494.

[3] EPA created the Clearinghouse "to provide a central data base of air pollution technology information (including past RACT, BACT, and LAER decisions contained in NSR [New Source Review] permits) to promote the sharing of information among permitting agencies and to aid in future case-by-case determinations." Clean Air Technology Center – RACT/BACT/LAER Clearinghouse, "Basic Information," available at www.epa.gov/ttn/catc/rblc/htm/welcome_eg.html (last accessed 09/22/14).

Medusa shut down the old plant in October 1979, and the new Flash Calciner Dry Process began operation on December 17, 1979. *Id*. at 484.[4]

II. EPA's Regional Haze Rulemaking For Michigan.

On July 1, 1999, EPA promulgated its Regional Haze Rule, which directed the States to implement the regional haze requirements of the CAA. 40 C.F.R. § 51.300 et seq.; 64 Fed. Reg. at 35,714. Among other things, the Regional Haze Rule requires States to identify sources that are eligible for application of BART based on dates of construction and operation (defined by EPA as "BART-eligible" sources). 40 C.F.R. § 51.301, 51.308(e). States were required to submit SIP revisions incorporating these requirements by December 17, 2007. *Id*. § 51.308(b). In 2005, St. Marys acquired the Charlevoix Plant. A.R. No. 11, Appx. at 424.

On January 15, 2009, EPA found that Michigan's 2008 regional haze SIP submission was defective. 74 Fed. Reg. 2392, 2393 (Jan. 15, 2009). On November 5, 2010, Michigan submitted a revised regional haze SIP. A.R. No. 10, Appx. at 168. Michigan stated that the Charlevoix plant was BART-eligible but it proposed BART emissions limits that the Charlevoix plant was already attaining, without the need to install additional air pollution control equipment. *Id.* at 207. Michigan did not mention any aspect of the 1977-79 permit process nor the attendant investment

[4] St. Marys will refer to this construction project as the "1979 reconstruction" because the construction was completed in 1979. EPA has also used 1979 as the year to describe this project. A.R. No. 50, Appx at 39.

and changes to the Charlevoix plant equipment and processes. *Id*. at 246-249. On August 6, 2012, EPA proposed to disapprove Michigan's SIP and impose more stringent BART emissions limits for the Charlevoix plant and established a 30-day public comment period. 77 Fed. Reg. 46912, 46924 (Aug. 6, 2012); A.R. No. 1, Appx. at 34. St. Marys met and communicated with EPA and submitted two sets of comments, one addressing the technical aspects of the proposed BART emissions limits, submitted on September 5, 2012, and one addressing whether the Charlevoix plant was BART-eligible, submitted on November 12, 2012. A.R. No. 11, Appx. at 415-477; A.R. No. 45, Appx. at 478-532. EPA included both sets of comments on the public rulemaking docket. *See* Dkt. EPA-R05-OAR-2010-0954, Doc. Nos. 21, 51.[5] St. Marys also informed EPA that the Charlevoix plant was not BART-eligible during a meeting with the agency. A.R. No. 37, Appx. at 590.

On November 29, 2012, Michigan sent a letter to EPA confirming that the Charlevoix plant was not BART-eligible. A.R. No. 48, Appx. at 533. Michigan stated that originally it did not consider the 1977-1979 permitting process nor the related investment and changes made to the Charlevoix plant equipment and processes when making its BART-eligibility determination, but after recently reviewing the permitting history and pertinent regulations, had concluded that the Charlevoix plant was not BART-eligible. *Id.*

[5] Available at http://www.regulations.gov/#!docketBrowser;rpp=25;po=0;D=EPA-R05-OAR-2010-0954 (last visited: 09/22/14).

On December 3, 2012, EPA published its final rule imposing its proposed BART emissions limits for SO_2 and NOx for the Charlevoix Plant. 77 Fed. Reg. at 71547; A.R. No. 2, Appx. at 15.[6] EPA imposed a much more stringent NOx limit (2.8 pounds of NOx per ton of cement clinker [lbs/ton] produced on a 30-day rolling average and 2.4 lbs/ton on a 12-month rolling average) compared to Michigan's proposed NOx limit of 6.5 lbs/ton. *Id*. EPA based that limit on the use of a Selective Non-Catalytic Reduction (SNCR) control system. *Id*. SNCR involves injecting ammonia or urea into the calciner/kiln exhaust to react with NOx to form nitrogen and water. A.R. No. 11, Appx. at 448. EPA stated that SNCR could reduce the Charlevoix plant's current NOx emissions by approximately 50%, based on comparisons to other cement plants. 77 Fed. Reg. at 71540; A.R. No. 2, Appx. at 8.

In its comments to EPA, St. Marys explained that SNCR is not effective at the Charlevoix plant based on the plant's temperature profile, gas retention time, geometry, and minor elements in the kiln gases. A.R. No. 11, Appx. at 420, 432-439, 448, 458. Upon acquisition of the Charlevoix plant in 2005, St. Marys hired DeNox Technology (an expert consultant in NOx control at cement plants) to assist St. Marys in the examination and implementation of an SNCR system. *Id*. at 430-432, 447-451. DeNox experimented with multiple configurations, multiple reagent

[6] The SO_2 limit is inconsequential because the Charlevoix plant already meets the limits that EPA set. 77 Fed. Reg. at 71547; A.R. No. 2, Appx. at 15.

flow rates, and evaluated different operating temperature profiles to implement the most effective location and operation of an SNCR system. *Id*. Despite this, DeNox concluded that "SNCR performance was lower than expected. Typically, NOx reduction*** is 40-60%; Charlevoix demonstrated 25-30% [NOx reduction]." *Id*. at 450. DeNox further stated that a "20% overall reduction can be achieved." *Id*. at 451. Moreover, the most effective of these test sequences was accompanied by significant ammonia slip[7] to the atmosphere. *Id*. at 430-432.

Despite DeNox's findings, St. Marys installed and operated an SNCR system to help control NOx during the summer months. A.R. No. 10, Appx. at 264. That system achieved approximately a 10% reduction of NOx emissions, but buildup of materials caused by its operation plugged the calciner system and caused shutdowns of the entire plant. *Id*. Based on these results, St. Marys now employs other approaches to improve its NOx control, including installation of a new Indirect Firing System (low NOx burners) and system optimization. *Id*. at 264-267. Michigan evaluated all of this site-specific information and concluded that SNCR would not be effective for the Charlevoix plant and therefore would not justify more stringent BART emissions limits. EPA disagreed with Michigan's conclusion, disapproved that portion of Michigan's SIP, and adopted the more stringent limits in EPA's Federal Implementation Plan (FIP).

[7] Ammonia slip refers to ammonia that is emitted into the atmosphere because low temperatures and short retention times did not allow it to react fully with NOx.

EPA acknowledged that St. Marys had submitted comments on BART-eligibility, in addition to its comments on SNCR, and confirmed that EPA would "carefully review the new comments and take any action warranted." 77 Fed. Reg. at 71537, n.1; A.R. No. 2, Appx. at 5. On January 17, 2013, SMC submitted a petition for reconsideration to EPA, requesting that EPA find that the Charlevoix plant is not BART-eligible. On January 29, 2013, St. Marys filed a petition for review in this Court and the Court stayed briefing pending EPA's decision on the petition for reconsideration. A year later, EPA denied St. Marys' petition for reconsideration by letter and published notice of that denial. On May 16, 2014, St. Marys filed a petition for review of the EPA's action denying SMC's petition for reconsideration and the two petitions for review were consolidated.

SUMMARY OF THE ARGUMENT

The visibility protection program of the CAA provides a narrow grant of authority to impose air pollutant emissions limits on certain sources based on the use of the best available retrofit technology (BART). BART emissions limits may only be imposed on a source if it was in existence on August 7, 1977 but not in operation before August 7, 1962. This 15-year window, known as "BART-eligibility," is at the core of this case.

St. Marys' predecessor-in-interest, Medusa Cement Company, began operating a cement manufacturing plant at Charlevoix in 1967. If the plant's same

kiln and clinker cooler facilities that were in place on August 7, 1977 remained in operation today, then the Charlevoix plant would be BART-eligible. However, EPA's regulations provide that if a source was reconstructed after August 7, 1977, it was not "in existence" on that date and therefore is not BART-eligible.

For purposes of EPA's regional haze regulations, a source is reconstructed if components are replaced to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new source. A reconstructed source must meet stringent New Source Performance Standards (NSPS), normally reserved for entirely new sources.

On November 7, 1977 Medusa applied for a permit to alter its Charlevoix plant. Medusa planned to spend $49 million to convert the existing cement process into an entirely new process by drastically changing the kiln and clinker cooler. This amount was nearly twice the total spent only 10 years earlier for the entire original plant. Emissions of all air pollutants would be substantially reduced compared to existing emissions.

The projected reduction in emissions meant that the changes to the kiln and clinker cooler could not be classified as "modifications" because that term-of-art applies only where there is an emissions increase. NSPS limits could be required only if the changes to the kiln and clinker cooler were determined to be

"reconstructions," which would trigger application of the NSPS limits regardless of whether emissions would increase.

Medusa tried to persuade the State that these changes to the facilities would not be reconstructions, but the State disagreed. The February, 1978 permit required the plant's new flash calciner/kiln and clinker cooler to meet the NSPS emissions limits. Because emissions were projected to decrease, the State must have concluded that the alterations were so substantial that they were a reconstruction. Because the Charlevoix plant was reconstructed after August 7, 1977, it is not BART-eligible.

When tasked to identify BART-eligible sources over 30 years later, the state of Michigan initially determined that the Charlevoix plant was BART-eligible. Michigan made this determination without reviewing the 1977-1979 factual and permitting history of the plant. But after further investigation, Michigan has now determined that the Charlevoix plant is not BART-eligible because it was not "in existence" on August 7, 1977. The CAA gives States the authority to determine whether sources within their borders are BART-eligible.

Michigan reached its conclusion after reviewing its permitting files and the applicable CAA language and EPA regulations. Both Michigan and St. Marys presented these facts and conclusions to EPA before EPA finalized its final rule concerning the Charlevoix plant. And in an abundance of caution, St. Marys filed a

petition for reconsideration with the agency to allow it the opportunity to fully investigate the issue. EPA refused to convene a proceeding and instead summarily concluded that the Charlevoix plant is BART-eligible and imposed emissions limits that are inconsistent with the requirements of the CAA and EPA's implementing regulations.

EPA's action is arbitrary and capricious and exceeds the authority granted by the CAA because in 1977-78, the State air permitting authority that reviewed Medusa's project came to the conclusion that it was a reconstruction and treated it as such. EPA cannot second-guess that determination more than 35 years after the fact. EPA's regulations are unambiguous – if a source is reconstructed after August 7, 1977, that is sufficient to make the source ineligible for application of BART emissions limits. These regulations are binding because Congress directed EPA to create them and they were promulgated after notice-and-comment rulemaking procedures. Moreover, while not required by the CAA or EPA regulations, the emissions limits that the State imposed on Medusa's 1977-79 project also met the requirements of the CAA "prevention of significant deterioration" program. This further demonstrates that, after the project was complete, the Charlevoix plant was treated as a new source, not one that had been in existence on August 7, 1977.

Alternatively, even if the Charlevoix plant was BART-eligible, EPA failed to follow CAA and regulatory requirements when it rejected the State's initial

BART emissions limits. Michigan thoroughly analyzed the site-specific information, which showed that the Charlevoix plant's design was not compatible with Selective Non-Catalytic Reduction (SNCR) technology. Based on this data, Michigan concluded that the existing control technology that St. Marys had implemented at the Charlevoix plant represented BART. EPA disagreed and imposed BART emissions limits based on the use of SNCR. EPA reached that conclusion by citing examples of other cement plants in the country whose SNCR systems had resulted in a 50% emissions reduction. None of those other cement plants, however, have the same design limitations that affect the Charlevoix plant. In fact, when St. Marys' consultant tested SNCR at the Charlevoix plant, it concluded that the system could only achieve a 20% reduction in emissions and the most effective tests were accompanied by significant emissions of ammonia and plugging of the system.

EPA's decision to impose BART emissions limits on the Charlevoix plant was arbitrary, capricious, not in accordance with law, and exceeded the authority granted by the CAA and should be vacated. Alternatively, if the Charlevoix plant is BART-eligible, the BART NOx emissions limits that EPA set are arbitrary and capricious, and not in accordance with law and should be vacated.

STANDARD OF REVIEW

Section 307 of the CAA provides that a court may reverse any EPA rulemaking that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or that is "in excess of statutory jurisdiction, authority, or limitations." 42 U.S.C. § 7607(d)(9)(A). A court also may reverse any action taken "without observance of procedure required by law." *Id*. § 7607(d)(7)-(9).

An action is arbitrary and capricious where the agency "has relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference of view or the product of agency expertise." *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 466, 474 (6th Cir. 2008). Although an arbitrary and capricious review is deferential, the agency "must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43; 103 S.Ct. 2856 (1983) (internal quotation omitted).

A court reviews an agency's interpretation of its own regulation with deference unless "the language of the regulation is unambiguous, for doing so would permit the agency, under the guise of interpreting a regulation, to create *de*

facto a new regulation." *Summit Petroleum Corp. v. EPA*, 690 F.3d 733, 740-41 (6th Cir. 2012), *reh'g denied* (Oct. 29, 2012) (internal quotation omitted).

ARGUMENT

I. The Charlevoix Plant Is Exempt From The BART Requirement.

Section 169A of the CAA provides authority to impose BART emissions limits on a narrow category of major stationary sources: those that were in existence on August 7, 1977, but that were not in operation before August 7, 1962. 42 U.S.C. § 7491(b)(2)(A). EPA defines this 15-year window as "BART-eligibility." 40 C.F.R. § 51.301. EPA does not have the authority to impose BART emissions limits on the Charlevoix plant unless it is first determined that the plant is BART-eligible. 40 C.F.R. § 51.308(e). Consistent with the agency's longstanding treatment of reconstructed sources, EPA regulations provide that a source that was reconstructed after August 7, 1977 is not BART-eligible. 40 C.F.R. Part 51, Appx. Y, § II.A.2.Step 2.

The former Wet Process cement kiln system at the Charlevoix plant began operation in 1967. A.R. No. 45, Appx. at 532. If that Wet Process remained in operation today, there would be no dispute that it is subject to BART requirements because it would have been "in existence" as of August 7, 1977. However, in 1978-79, the plant was "reconstructed" within the meaning of EPA's regulations. *Id*. at 482-484. The plant's existing Wet Process was entirely replaced with a new

and different Flash Calciner Dry Process technology, for an investment of $49 million, approximately twice the amount paid for the entire original plant only 10 years earlier. *Id*. This new process was projected to reduce all plant emissions of SO_2 by more than 78%, of NOx by more than 59%, and of PM by more than 71%. *Id*. at 529. Michigan reviewed this new Flash Calciner Dry Process and imposed emissions limits applicable to new sources. *Id*. at 495. Because it was reconstructed in 1978-1979, the current Charlevoix plant is not BART-eligible. 40 C.F.R. Part 51, Appx. Y, § II.A.2.Step 2. Consequently, the BART emissions limits EPA has imposed on the Charlevoix plant must be vacated because they are not in accordance with law and beyond statutory authority. 42 U.S.C. § 7607(d)(9)(A).

A. The Charlevoix Plant Is Exempt From The BART Requirement Because It Was Reconstructed After August 7, 1977.

The regulatory definition of "BART-eligible source" reflects the fact that Congress passed the statutory amendment containing the BART requirement on August 7, 1977. Public Law 95-95. Congress grandfathered older sources that had been operating for more than 15 years at the time of the amendment (i.e., prior to August 7, 1962). 42 U.S.C. § 7491(b)(2)(A). Congress also exempted from the BART requirement those sources that were not "in existence" until after the 1977 amendments because those sources had to meet emissions limits applicable to new sources, the NSPS.

EPA defines the term "in existence" as follows:

> the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.

40 C.F.R. § 51.301.

EPA regulations further provide that:

> the "in operation" and "in existence tests" apply to reconstructed sources. If an emissions unit was reconstructed and began actual operation before August 7, 1962, it is not BART-eligible. Similarly, any emissions unit for which a reconstruction "commenced" after August 7, 1977, is not BART-eligible.

40 C.F.R. Part 51, Appx. Y, § II.A.2.Step 2.

The regulations further provide that determining whether a source's emissions units were reconstructed, as used in the BART regulations, is the same test for determining whether a source's "existing facilities" were reconstructed under the NSPS regulations. *Id*. Appx. Y, § II.A.2.Step 2. Read together, these regulations are unambiguous – if a source's emissions units were reconstructed after August 7, 1977, the source is not BART-eligible. The permit for the 1979 reconstruction of the Charlevoix plant was not issued until February, 1978, which means that the 1979 project could not have been "in existence" on August 7, 1977 because, as of that date, it did not have "all necessary preconstruction approvals

and permits." 40 C.F.R. § 51.301. Because the Charlevoix plant was reconstructed after August 7, 1977, EPA has no authority to impose any BART emissions limits on the plant.

B. The State Permitting Authority Treated The 1979 Construction Project As A Reconstruction.

At the time of the 1979 construction project, Medusa Cement Company owned the Charlevoix plant. A.R. No. 45, Appx. at 491. On November 3, 1977, Medusa submitted an application for a preconstruction permit to the state of Michigan. *Id*. In its cover letter to the application, Medusa claimed that the changes it was proposing to the Charlevoix plant were not significant enough to qualify as a reconstruction, and therefore the Charlevoix plant should not be regulated as a new source subject to NSPS emissions limits. *Id*. In NSPS parlance, Medusa argued that its existing facilities (its kiln and clinker cooler) should not be treated as affected facilities as a result of the project. *See* 40 C.F.R. § 60.1.

Under NSPS regulations, there are two (and only two) ways for an existing facility to become an affected facility and thereby become subject to NSPS emissions limits. First, if an "existing facility" is "modified" (which means a change to the facility has resulted in an increase in emissions of an air pollutant or emissions of an air pollutant not previously emitted), it becomes subject to NSPS. *Id*., § 60.14(a). Second, if an existing facility is "reconstructed," it becomes subject to NSPS emissions limits. *Id*., § 60.15(a). EPA defined reconstruction as:

> The replacement [of components] of an existing facility to such an extent that: (1) the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and (2) it is technologically and economically feasible to meet the applicable standards set forth in this part.

Id., 60.15(b) (1975) (bracketed language added by later amendment).

The key distinction between a modification and a reconstruction is that for a change in equipment to be classified as a modification, there must be an increase in emissions as a result of the change, whereas a change in equipment may be classified as a reconstruction "irrespective of any change in emission rate." *Id*., § 60.15(a); *see also Wisconsin Elec. Power Co. v. Reilly*, 893 F.2d 901, 913 (7th Cir. 1990).

Given this regulatory framework, it is unsurprising that Medusa attempted to persuade the permitting authority that the proposed changes would not meet EPA's definition of reconstruction. Medusa had submitted data showing that the emissions rates of all pollutants would decrease after the changes were made. A.R. No. 45, Appx. at 529. Because there would be no increase in the emissions rates after the proposed changes, the State could not impose NSPS emissions limits on the kiln and clinker cooler as modifications. 40 C.F.R. § 60.14(a). The State had to find that the facilities were reconstructed before it could impose NSPS emissions limits.

That is exactly what the State did. In the permit to install issued to Medusa, the State imposed all of the then-applicable NSPS emissions limits on the Charlevoix plant. Special Conditions 12-14 of the permit explicitly state that the kiln and clinker cooler must meet emissions limits "based on the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart F." *Id*. at 18. In other words, the State rejected Medusa's argument that the changes made to its kiln and clinker cooler would not amount to reconstructions.

EPA disputes this conclusion by ignoring the record evidence and misreading the applicable historical regulations. A.R. No. 50, Appx. at 47. It argues in its letter denying St. Marys' petition for reconsideration that Medusa may have decided to accept the NSPS limits as "synthetic minor limits" to avoid triggering more stringent limits under "major-source PSD/NSR review." *Id*. This position does not withstand scrutiny.

First, Medusa unequivocally asserted to the State that the project would not amount to a reconstruction and that its kiln and clinker cooler would not become "affected facilities." A.R. No. 45, Appx. at 491. The only reason to do so was to avoid application of the NSPS. EPA has not pointed to any record evidence to contradict the fact that Medusa wanted to avoid application of the stringent NSPS emissions limits at all costs.

Second, Medusa could not have voluntarily accepted NSPS limits as a means to avoid PSD review under the CAA. At the time that Medusa submitted its application, the PSD preconstruction requirements applied to "any" stationary source of a certain type (including Portland cement plants) that was changed in such a way that emissions increased in any amount. *See* 40 C.F.R. § 52.21(d) (1974) (39 Fed. Reg. at 42516). There was no de minimis exemption. *Id*. Synthetic minor limits only make sense in the modern-day PSD regime where a modification of an existing source is not subject to PSD requirements unless the emissions increase is "significant," i.e., more than a de minimis amount. *See* 40 C.F.R. § 52.21(b)(2)(i), (b)(23) (2002).

Third, even if Medusa could have agreed to limits to avoid PSD review, it would not have needed to do so because emissions of all pollutants were projected to decrease substantially. A.R. No. 45, Appx. at 529. Under EPA's regulations at the time, in order for a change to an existing source to be treated as a modification and subject to PSD requirements, it had to cause an increase in emissions. 40 C.F.R. § 52.01(d) (1974).

Fourth, the type of synthetic minor limits that EPA recognized in the 1978-1979 time period were not included in Medusa's permit. At that time, EPA only recognized two ways that a source could effectively limit its potential to emit: by limiting the annual hours of operation of the source; or by limiting the type or

amount of materials combusted or processed. 40 C.F.R. § 52.21(b)(3) (1978) (43 Fed. Reg. 26388, 26404) (Jun. 18, 1978). The Medusa permit contains neither.

C. The 1979 Construction Project Was A Reconstruction Because The Financial Test Was Met.

The regional haze regulations provide that a source is presumptively treated as a reconstruction where "the fixed capital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source." 40 C.F.R. § 51.301. Although Medusa argued that the cost of the new components would not meet this financial test, the record evidence contradicts Medusa's position. The permit file shows that the total project cost to convert to the new process was $49 million (in 1978 dollars). A.R. No. 45, Appx. at 493. This figure alone makes Medusa's argument nonsensical because the amount spent to replace only the kiln and clinker cooler was nearly double the amount that Medusa spent just 10 years earlier to construct the entire plant from the ground up. To further illustrate the problems with Medusa's position, St. Marys provided to EPA comparative cost figures from a new cement plant that St. Marys built in 2002. *Id*. at 482. The total project cost of the 2002 plant, not including the costs of land acquisition or quarry costs, totaled $108,228,556 in 2002 dollars. *Id*. Converting that cost to 1978 dollars yields $43,676,000. *Id*. This demonstrates that Medusa's project satisfies the financial test for a reconstruction because the 1977-1979 project's capital costs

were over 50% (and in fact over 100%) of the capital costs of building not just a new kiln and clinker cooler, but an entire new plant.

In its denial letter, EPA argues that St. Marys has not explained why the 2002 cement plant is a "comparable entirely new source," suggesting that the lapse of time between the 1977-1979 and 2002 projects prevents an effective comparison. A.R. No. 50, Appx. at 47. The term "comparable entirely new source" is not defined in either the regional haze regulations or in the NSPS regulations (which are the source of the regional haze definition of reconstruction). Referring to a dictionary definition of the word "comparable" helps to explain the meaning of this phrase. *See Summit Petroleum*, 690 F.3d at 741 ("This Court, and others as well, have often consulted dictionaries to ascertain the meaning of words"). The American Heritage Dictionary defines "comparable" as "[t]he quality of being similar or equivalent; likeness."[8] Both projects are Portland cement plants with similar components and both were built by St. Marys or St. Marys' predecessor-in-interest. These are sufficient to make the two projects "comparable."

More importantly, the purpose of EPA's financial test is to determine whether the components have been changed to such a degree that the facility or source should be considered new or reconstructed for purposes of certain CAA programs. 40 Fed. Reg. at 58417. Medusa's original plant, built in 1965-1967, cost

[8] Available at www.ahdictionary.com (last visited: 09/22/14).

$25 million. A.R. No. 45, Appx. at 532. The 1977-1979 project, built only 10 years later, cost nearly double that original investment and changed the plant from one type of cement-making process to another. *Id*. This was no minor change. These facts demonstrate that Medusa's 1977-1979 project easily meets the regulatory definition of reconstruction. EPA did not come forward with any evidence to the contrary, despite taking over a year to decide St. Marys' petition for reconsideration.

D. Any Uncertainty Over Whether There Was A Reconstruction Should Be Resolved In St. Marys' Favor.

The evidence submitted to EPA conclusively demonstrates that the 1977-1979 project was a reconstruction. But EPA apparently remains unconvinced and states that it needs certainty in order to conclude that the project was a reconstruction. A.R. No. 50, Appx. at 47. Even if EPA were correct that the issue is unclear, EPA has the burden of proof backwards. It is EPA's burden to affirmatively establish that it has the authority to regulate St. Marys under the regional haze program; it is not St. Marys' burden to prove the contrary. *Massachusetts v. EPA*, 549 U.S. 497, 534; 127 S.Ct. 1438 (2007) (holding that EPA cannot rely on uncertainty as the reason for deciding to regulate or not to regulate). BART-eligibility is not a peripheral issue – it is the sole basis for EPA's authority to impose BART emissions limits on a source. EPA must explain why it is taking certain regulatory action and provide a "rational connection between the

facts found and the choice made." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 42-3. This is especially true where the State, the entity tasked with determining BART-eligibility in the first instance, has determined that the Charlevoix plant is not BART-eligible. *Amer. Corn Growers Ass'n*, 291 F.3d at 5, 8.

The procedural posture of this case further undermines EPA's action because St. Marys' petition for reconsideration afforded EPA the opportunity to more fully investigate the reconstruction issue. EPA cannot argue that it needs more evidence, but then in the next breath refuse to use the statutory mechanism for obtaining that additional evidence. EPA's action amounts to a "failure to consider an important aspect of the problem" and is therefore arbitrary and capricious. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 552; 129 S.Ct. 1800 (2009).

E. EPA Cannot Disavow In Litigation The Plain Meaning Of Its Regulations.

In its letter denying St. Marys' petition for reconsideration, EPA argued that even if the Charlevoix plant was reconstructed, it would still be BART-eligible. A.R. No. 50, Appx. at 47-49. In support, EPA erroneously analyzed the 1979 reconstruction through a 2014 perspective and attempted to disavow its own regulations. St. Marys addresses EPA's arguments in turn below.

1. EPA's BART Guidelines Are Binding.

EPA's Denial Letter refers to the section of its regional haze regulations that discuss reconstructions and BART-eligibility as the "BART Guidelines." *Id*. at 5. EPA promulgated the BART Guidelines through notice-and-comment rulemaking and they have been codified in the Code of Federal Regulations for nine years. *See* 40 C.F.R. Part 51, Appx. Y; 70 Fed. Reg. 39104 (Jul. 6, 2005). EPA created these Guidelines because "[s]ection 169A(b)(1) of the CAA requires EPA to issue regulations to provide guidelines to States on the implementation of the visibility program." 70 Fed. Reg. at 39108 (Jul. 6, 2005). EPA requires States to use the Guidelines when making a BART determination for 750 megawatt power plants and "encourage[s] States to follow the guidelines for all source categories." *Id*.; *see also* 40 C.F.R. § 51.308(e)(1)(B). Michigan has adopted the Guidelines and requires that they be used to determine BART-eligibility for all source types. MICH. ADMIN. CODE R. 336.1970-1971. In neither its proposed nor its final actions on Michigan's regional haze SIP did EPA disapprove of Michigan's use of the Guidelines.

Despite all of this, EPA now suggests that its BART Guidelines are inconsistent with the "regulatory definition" of BART-eligible source, and the "regulatory definition" prevails over any inconsistency in the Guidelines. A.R. No. 50, Appx. at 48. EPA's argument is both factually and legally erroneous.

The regulatory definitions of "BART-eligible source" and "existing stationary facility," contained in 40 C.F.R. § 51.301, are not inconsistent with the treatment of reconstructed sources in the Guidelines. In 40 C.F.R. § 51.301, EPA defined "BART-eligible source" as an "existing stationary facility," which is defined as any stationary source of pollution, falling within a certain source category, "including any reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7, 1977." As EPA has explained, the purpose of including the concept of reconstruction in this definition was to bring within EPA's regulatory ambit "sources which were in operation before 1962 but reconstructed during the 1962 to 1977 time period." 70 Fed. Reg. at 39111 (Jul. 6, 2005). EPA treated a source that had been in existence before 1962 but reconstructed during the 1962 to 1977 time frame as a new source as of the date of its reconstruction and therefore BART-eligible because it became "in existence" during the 15-year BART-eligibility window. *Id*. The logical corollary of this rule is that a source that was reconstructed after 1977 would be treated as a new source as of a date of its reconstruction and therefore is not BART-eligible because it became "in existence" after the window. EPA's Guidelines recognize and codify this logical corollary – they state that "any emissions unit for which a reconstruction 'commenced' after August 7, 1977, is not BART-eligible." 40 C.F.R. Part 51, Appx. Y § II.A.2.Step 2. EPA's litigation position to the contrary

should be rejected. *See Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 212-213 (1988) ("Deference to what appears to be nothing more than an agency's convenient litigating position would be entirely inappropriate").

EPA's suggestion that the Guidelines have less weight than its other regional haze rules is also wrong from a legal standpoint. These are not the mere pronouncements of a particular agency official in an interpretive letter. EPA promulgated the Guidelines after two public comment periods and received "numerous comments" from the public, to which EPA responded in a notice of final rulemaking published in the Federal Register. 70 Fed. Reg. at 39104 (Jul. 6, 2005). Despite their misleading name, the Guidelines are unquestionably "legislative rules" because they affect individual rights and obligations, were promulgated following notice-and-comment rulemaking procedures, and have been treated by EPA as binding. *Long Island Care at Home, Ltd. v. Coke*, 551 U.S. 158, 172-73; 127 S.Ct. 2339 (2007). Most importantly, the Guidelines are legislative because Congress directed EPA in the text of the CAA to promulgate them. 42 U.S.C. § 7491(b)(1); *see also Long Island Care at Home*, 551 U.S. at 173. Because the Guidelines are a legislative rule, they are binding on the agency and on the Court. *Dismas Charities, Inc. v. U.S. Dep't of Justice*, 401 F.3d 666, 681 (6th Cir. 2005). And even if the Guidelines were an interpretive rule, they would be binding

on EPA. *Id*. In sum, EPA's rules for reconstructed sources as stated in the Guidelines are binding.

2. EPA's BART Guidelines Are Unambiguous.

EPA's BART Guidelines clearly provide that a source that is reconstructed after August 7, 1977 is not BART-eligible. 40 C.F.R. Part 51, Appx. Y, § II.A.2.Step 2. In its letter denying St. Marys' petition for reconsideration, EPA now improperly attempts to add another requirement that is not in the rule. *See Environ. Defense v. Duke Energy Corp*., 549 U.S. 561, 580-581; 127 S.Ct. 1423 (2007) ("an isolated opinion of an agency official does not authorize a court to read a regulation inconsistently with its language"). EPA argues that it is not enough that an emissions unit was reconstructed outside of the BART-eligibility window – in addition, EPA now asserts that the emissions unit must have also gone through review under the CAA's PSD program. A.R. No. 50, Appx. at 48. EPA fabricates this argument by referring to the legislative history of its rulemakings. This is impermissible.

The Court reads both "statutes and regulations with an eye to their straightforward and commonsense meanings, and where the regulation's language reveals an unambiguous and plain meaning…, [the] task is at an end." *In re Arctic Express Inc.*, 636 F.3d 781, 791 (6th Cir. 2011) (internal quotations omitted). The Guidelines are clear: "any emissions unit for which a reconstruction 'commenced'

after August 7, 1977, is not BART-eligible." 40 C.F.R. Part 51 Appx. Y, § II.A.2.Step 2. Resort to legislative history is unnecessary and inappropriate. *In re Arctic Express*, 636 F.3d at 791. The fact that the CAA does not mention reconstructions is of no moment because this concept has always been a regulatory one. EPA created the regulatory definition for reconstruction in 1975 for use in the NSPS regulations, despite the fact that the NSPS section of the CAA does not mention reconstruction. *Cf.* 40 Fed. Reg. at 58417; 42 U.S.C. § 7411. EPA has used the concept of reconstruction for nearly 40 years in its enforcement of the CAA; it is disingenuous for EPA to now suggest that use of the concept in the regional haze regulations is suspect.

Contrary to EPA's position in its Denial Letter, nowhere do the regional haze rules state that a reconstructed source must also have gone through New Source Review under the PSD program in order to avoid BART-eligibility. *See Baptist Hosp. Org., Inc. v. Humana Military Healthcare Servs., Inc.*, 481 F.3d 227, 244 (6th Cir. 2007) (a reviewing court "look[s] to the regulatory scheme, reading the regulation in its entirety to glean its meaning"). The definition of reconstruction in the regional haze rules does not mention the PSD program; it only mentions and refers to the NSPS program. 40 C.F.R. § 51.301. The rules further provide that "the same policies and procedures for identifying reconstructed 'affected facilities' under the NSPS program must also be used to identify reconstructed 'stationary

sources' for purposes of the BART requirement." 40 C.F.R. Part 51, Appx. Y, § II.A.2.Step 2. This indicates that EPA did not intend to impose the BART requirement on sources whose emissions units were reconstructed after the 15-year BART-eligibility window (and therefore would have to meet stringent emissions limits contained in the NSPS regulations). *Cf.* 40 C.F.R. §§ 51.301, 60.15.

This becomes even clearer considering that the section of the Guidelines immediately following the section on reconstruction expressly discusses New Source Review. 40 C.F.R. Part 51, Appx. Y § II.A.2.Step 2; *see Jewish Hosp., Inc. v. Sec'y of Health & Human Servs.*, 19 F.3d 270, 275 (6th Cir. 1994) ("Adjacent provisions utilizing different terms…must connote different meanings"). In this section, the Guidelines explain that the concept of modification is part of the NSPS program and the New Source Review program. 40 C.F.R. Part 51, Appx. Y § II.A.2.Step 2. The Guidelines further state that where a modification is also a "major modification" (a term from the PSD program), the emissions limits already imposed on the source by virtue of its status as a "major modification" are taken into consideration when considering whether to impose different and more stringent BART emissions limits. *Id*. EPA's failure to include a similar discussion of PSD in the immediately preceding reconstruction section demonstrates that EPA intended that reconstruction alone was both necessary, and sufficient. If a source is reconstructed after August 7, 1977 it is not BART-eligible.

EPA's decision not to require PSD review for all reconstructed sources in the regional haze regulations also makes sense in the context of the PSD program. *Baptist Hosp. Org.*, 481 F.3d at 244. EPA's current PSD regulations do not require a reconstructed source to meet PSD requirements unless the reconstructed source is also a major modification. 40 C.F.R. § 52.21(a)(2). As EPA has explained:

> we decided against applying PSD to ''reconstruction,'' even of entire sources, on the grounds that, as to existing sources that would not otherwise be subjected to PSD review as a major modification (*i.e.*, such source would not cause a significant net emissions increase), changes that had no emission consequences should not be subject to PSD regardless of their magnitude.

67 Fed. Reg. at 80194).

Said differently, "Congress wished to apply the [PSD] permit process…only where industrial changes might increase pollution in an area, not where an existing plant changed its operations in ways that produced no pollution increase." *Alabama Power Co.*, 636 F.2d at 401.

3. The State Required The Charlevoix Plant To Meet PSD Emissions Limits.

Even if the regional haze regulations required PSD review for sources reconstructed after August 7, 1977, the Charlevoix plant would still pass muster. EPA's Denial Letter concedes that a source that was reconstructed after August 7, 1977 and went through PSD review is not BART-eligible. A.R. No. 50, Appx. at 48. EPA then baldly, but incorrectly, asserts that "neither St. Marys nor Michigan

has provided any indication that the Charlevoix facility underwent PSD review." *Id*. The record evidence and regulatory history belie EPA's conclusion.

The permit for the 1979 reconstruction states that "[o]peration of this facility shall not result in substantial deterioration of air quality." A.R. No. 45, Appx. at 494. The Staff Activity Report that the State created when evaluating the 1977 permit application concluded that "the installation of the proposed equipment will not have a significant impact on maintaining air quality standards nor cause substantial deterioration of the air quality." *Id*. at 529. The repeat use of the phrase "substantial deterioration of air quality" clearly refers to the PSD program and EPA offers no explanation to the contrary. The 1977 version of the CAA does not refer to "significant deterioration" (or using the State's phrasing, "substantial deterioration") except in the context of the PSD program. *See* Public Law 95-95.

The fact that Michigan determined that the 1979 reconstruction would not increase emissions whatsoever ends the analysis for purposes of PSD review. "If a particular set of industrial alterations is not a 'modification' within the terms of the Act, then it is subject to neither the procedural nor substantive PSD requirements." *Alabama Power*, 636 F.2d at 403. The PSD sections of the CAA borrow the definition of "modification" from the NSPS section of the statute, which is triggered only if there is an emissions increase. 42 U.S.C. § 7479(2)(C), 7411(a.

Moreover, as a practical matter the Charlevoix plant was subjected to PSD requirements because Michigan imposed emissions limits for the 1979 reconstruction that were equivalent to application of BACT, the emissions limits required by the PSD program. The permit contained PM emissions limits for the kiln and preheater (0.30 pounds per ton of dry feed) and the clinker cooler (0.10 pounds per ton of dry feed), which were the NSPS at the time. A.R. No. 45, Appx. at 495. The permit also contained a SO_2 emissions limit of 250 pounds per hour. A.R. No. 45, Appx. at 495. The PSD regulations in effect at that time required BACT emissions limits for only two pollutants: PM and SO_2. *See* 40 C.F.R. § 52.21(d)(2)(ii) (1974) (39 Fed. Reg. at 42516)). If there was an applicable NSPS emissions limit, then BACT was equal to the NSPS emissions limit. *Id*. § 52.01(f). If there was no applicable NSPS emissions limit, the BACT limit was determined on a case-by-case basis. *Id*.

In 1977-1979, there were NSPS emissions limits for PM for Portland cement plants and Michigan incorporated those limits into the Medusa permit. 40 C.F.R. § 60.62 (1974) (39 Fed. Reg. at 20793). There was no SO_2 NSPS for Portland cement plants.[9] However, data from EPA's BACT Clearinghouse demonstrates that the 250 pounds per hour SO_2 limit imposed in Medusa's permit was consistent with, and in fact more stringent than, BACT SO_2 limits for Portland Cement plants

[9] EPA did not propose an SO_2 NSPS for Portland Cement plants until 2008. 73 Fed. Reg. 34072 (Jun. 16, 2008).

permitted at that time. There are two permits in the database for Portland cement plants from the 1977-1979 time period. A.R. No. 42, Appx. at 591-616. The first permit, issued to Kaiser Cement & Gypsum Corporation on December 26, 1978, imposed a BACT limit of 481 pounds of SO_2 per hour. *Id*. at 612-613. The second permit, issued to California Portland Cement Company on January 12, 1979, imposed a BACT limit of 616 pounds of SO_2 per hour. *Id*. at 591-593.

This record evidence shows that for all practical purposes, the State subjected the 1979 reconstruction not only to NSPS emissions limits, but also to emissions limits consistent with PSD BACT requirements.

II. The Issue Of BART-Eligibility Is Properly Before The Court.

A. St. Marys And The State's Letters Addressing BART-Eligibility Are Part Of The Record Because EPA Docketed Them.

In October 2012, St. Marys informed EPA that the Charlevoix plant was not BART-eligible. A.R. No. 37, Appx. at 590. Then, St. Marys provided EPA with written comments directly addressing BART-eligibility on November 12, 2012. A.R. No. 45, Appx. at 478-532. Michigan provided EPA with a letter concluding that the Charlevoix plant was not BART-eligible on November 29, 2012. A.R. No. 48, Appx. at 533-534. EPA docketed both letters. *See* Dkt. EPA-R05-OAR-2010-0954, Doc. Nos. 21, 51. Section 307 of the CAA provides that the record on review consists of those documents that EPA places on the public docket for the

rulemaking. 42 U.S.C. § 7607(d)(7)(A). The issue of BART-eligibility, as described in the two letters, is preserved for review.

B. EPA Had An Independent Duty To Consider BART-Eligibility.

In order for a challenge to an EPA rule to be preserved for judicial review, generally a party must make an objection during the public comment period. *See* 42 U.S.C. 7607(d)(7)(B). However, EPA retains the duty to justify a key assumption, "even if no one objects to it during the comment period." *Appalachian Power Co. v. EPA*, 135 F.3d 791, 818 (D.C. Cir. 1998). This is because EPA must "examine key assumptions as part of its affirmative burden of promulgating and explaining a nonarbitrary, non-capricious rule." *Natural Res. Def. Council v. EPA*, 755 F.3d 1010, 1023 (D.C. Cir. 2014).

EPA accepted Michigan's initial conclusion that the Charlevoix plant was BART-eligible (which the State later recanted) without independent analysis. EPA apparently made no effort to investigate the permit or operational history of the Charlevoix plant, despite the fact that its authority to impose BART emissions limits is entirely dependent on these facts. This is especially problematic considering the State's cursory treatment of BART-eligibility in its regional haze SIP submission. The SIP submission stated:

> The DNRE [i.e., Michigan Department of Natural Resources and Environment] identified 35 non-EGU facilities with a total of 84 emissions units within the state that were potentially subject to BART

(i.e., BART-eligible) based on dates of installation and commencement of operations (see Table 1 of Appendix 9B).

A.R. No. 10, Appx. at 200.

Table 1 in Appendix 9B listed purported BART-eligible sources in Michigan without citation to supporting facts. *Id*. at 246-248. There is no discussion of when the Charlevoix plant went into operation, no discussion of the 1979 reconstruction, and no discussion of the permitting history. There was no way that EPA could have made a reasoned determination on BART-eligibility by relying wholly on the assumptions in the Michigan SIP submission. EPA's BART regulations require the following for SIPs addressing regional haze: "[t]o address the requirements for BART, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses: (i) A list of all BART-eligible sources within the State. * * *" 40 C.F.R. § 51.308(e) (1). The State failed to include "documentation" of its analysis of whether the Charlevoix plant was BART-eligible. Moreover, the CAA imposes the same duty on EPA to follow the same process and make an explicit BART-eligibility determination where EPA imposes a FIP to replace a defective state submission. 42 U.S.C. § 7491(b)(2)(A).

This point is underscored by Michigan's November 29, 2012 letter in which it conceded that it did not make the proper investigation into the Charlevoix plant permitting history when it initially reviewed it for BART-eligibility. A.R. No. 48,

Appx. at 533. This letter alone is sufficient to trigger EPA's independent duty. *See Portland Cement Ass'n v. EPA*, 665 F.3d 177, 187 (D.C. Cir. 2011) ("agencies have an obligation to deal with newly acquired evidence in some reasonable fashion…or to reexamine their approaches if a significant factual predicate changes") (internal quotations omitted). After EPA received the November 29 letter, it should have delayed rulemaking with respect to the Charlevoix plant until it investigated the BART-eligibility issue.

It is no answer that EPA was working under the time constraints of a consent decree, entered in *Nat'l Parks Conserv. Assoc. v. Jackson*, 11-cv-1548, Dkt. No. 21, (D.C. Cir. Nov. 9, 2011).[10] First, St. Marys was not a party to that consent decree and should not be prejudiced by a deadline that EPA imposed on itself, especially given that the reason for the consent decree was EPA's failure to act promptly to implement the regional haze requirements. *Ohio ex rel. Skaggs v. Brunner*, 549 F.3d 468, 476 (6th Cir. 2008) ("Consent decrees derive their authority from the parties' consent, which permits the parties to give away their rights, not the rights of third parties"). Second, the existence of a deadline in a consent decree does not dispense with rulemaking requirements. *See Portland Cement Ass'n*, 665 F.3d at 187-188. Third, the consent decree provides that the time limitations imposed may be modified (Consent Decree at ¶ 7) and EPA has

[10] A copy of the consent decree is attached to this brief.

sought and obtained modifications of these limitations over 10 times, including three extensions for other aspects of the Michigan rulemaking. *See Nat'l Parks Conserv. Assoc*, 11-cv-1548, Dkt. Nos. 25, 30, 36, 49, 52, 56-58, 61, 64, 67, 70, 72, 80, 82. The text of the consent decree also provides that it does not alter or limit EPA's discretion to take action on the regional haze plans. Consent Decree at ¶ 11. EPA cannot rely on the consent decree to dispense with its rulemaking obligations.

C. EPA Had Notice Of The Reconstruction During The Public Comment Period.

Throughout its comments submitted during the public comment period, St. Marys made reference to the 1979 reconstruction. A.R. No. 11, Appx. 427, 456, 476. For example, St. Marys informed EPA that "in 1979, the kiln was shortened to just above the bull gear" and that "[i]n the late 1970s the Charlevoix plant was converted into a preheater/pre-calciner process." *Id*. at 427, 476. Shortening a cement kiln and converting to an entirely new process are hardly minor construction projects. At the very least, these facts should have caused EPA to investigate the 1979 project and determine whether it amounted to a reconstruction.

D. St. Marys Preserved The BART-Eligibility Issue By Petitioning The EPA For Reconsideration.

Because St. Marys' November 12 letter and Michigan's November 29 letter were both submitted after the public comment period had closed, in an abundance of caution, St. Marys timely filed a petition for reconsideration with EPA. A.R. No. 49, Appx. at 535-588. The judicial review provisions of the CAA provide that where a party raises an objection after the public comment period, it was "impracticable" to raise the objection during the public comment period, and the objection is of central relevance to the outcome of the rule, then EPA:

> shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.

42 U.S.C. § 7607(d)(7)(B).

EPA also must convene a proceeding for reconsideration where an objection is of central relevance and the grounds for the objection arose after the period for public comment but within the period for judicial review. *Id*. Both St. Marys' November 12 letter and Michigan's November 29 letter satisfy these requirements. Although EPA denied St. Marys' petition for reconsideration on procedural grounds, it did not contest that the issues raised in the two letters were centrally relevant to the Michigan regional haze rule. A.R. No. 50, Appx. at 44-45. Nor could EPA defensibly take that position because if the Charlevoix plant is not

BART-eligible, then that ends the matter and EPA cannot impose BART emissions limits.

It was impracticable for St. Marys to raise the objections in its November 12 letter during the public comment period because, initially, Michigan determined that existing controls at the Charlevoix plant represented BART, meaning that St. Marys would not have had to install any new technological controls or increase expenses. A.R. No. 10, Appx. at 206-207. It would have been economically irrational for St. Marys to expend resources investigating the BART-eligibility issue where Michigan's proposed BART limits could be met without additional investment, especially since St. Marys had only owned the Charlevoix plant since 2005 and did not have most of the records that would be needed to determine whether the plant was BART-eligible. St. Marys also was aware that other cement manufacturing plants of approximately the same age as the Charlevoix plant had already received BART emissions limits approximately the same as those in the Michigan SIP submission.

St. Marys believed that, once EPA was made aware of the plant-specific design limitations at Charlevoix, EPA would recognize (as Michigan had earlier) that the current limits for that plant represented a BART level of control. It was not until an October 10, 2012 meeting with EPA, after the public comment period had closed, that St. Marys realized that EPA was intent on imposing much more

stringent limits. As a result, St. Marys reevaluated its entire strategy and investigated whether the Charlevoix plant was BART-eligible in the first place. St. Marys worked as quickly as it could given the time constraints and informed EPA on October 24, 2012 of its preliminary findings. A.R. No. 37, Appx. at 590.

Michigan's November 29 letter also meets the statutory requirements to trigger a reconsideration proceeding. Michigan's conclusion that the Charlevoix plant is not BART-eligible did not exist until after the public comment period expired. St. Marys cannot be prejudiced by failing to raise the State's facts and conclusions in that letter earlier. The November 29 letter is part of the record on review.

E. EPA Is Foreclosed From Asserting That BART-Eligibility Has Not Been Preserved.

The foregoing discussion of preservation should be academic because EPA committed to make, and has in fact made, a determination on the question of whether the Charlevoix plant is not BART-eligible because it was reconstructed after August 7, 1977. In its final rule, EPA stated that it would "carefully review the new comments [on BART-eligibility] and take any action warranted." 77 Fed. Reg. at 71537, n.1; A.R. No. 2, Appx. at 5. In its letter denying St. Marys' petition for reconsideration, EPA reiterated that it had "committed in the final rulemaking to review the information presented in the November 12, 2012 letter and to take any action warranted." A.R. No. 50, Appx. at 45. And in that denial letter, EPA

discussed St. Marys' arguments, responded, and then denied the petition on substantive grounds. *Id*. at 47-49. This alone is sufficient to preserve the issue for judicial review because EPA had the opportunity (over a year) to consider the issue and make a determination on the merits, which is the purpose of the CAA's general rule that an objection first must be raised with the agency in order to be preserved for review. *See* 42 U.S.C. 7607(d)(7)(B); *North Dakota v. EPA*, 730 F.3d 750, 770 (8th Cir. 2013) *cert. denied*, 134 S. Ct. 2662 (U.S. 2014). For all of these reasons, there is no jurisdictional bar to this Court's consideration of whether the 1979 reconstruction renders the Charlevoix plant ineligible for BART emissions limits.

III. Even If The Charlevoix Plant Is BART-eligible, EPA's BART NOx Emissions Limits Must Be Vacated.

Assuming the Charlevoix plant is BART-eligible, the BART NOx limits set by EPA should be vacated and replaced by those that Michigan had adopted. BART limits must be established on a source-specific, case-by-case basis taking into account six site-specific factors. 40 C.F.R. § 51.301; 42 U.S.C. § 7491(g)(2). Michigan followed the CAA and its regulations; EPA did not.

EPA discounted actual Charlevoix plant-specific test data demonstrating that the Selective Non-Catalytic Reduction (SNCR) technology, upon which EPA based its BART limits, would not control NOx to the degree EPA demands at Charlevoix. EPA also did not properly account for the Charlevoix plant's inherent design limitations, which prevent effective use of SNCR. Instead, EPA speculated

that better control was possible using SNCR, without any real world examples or data to demonstrate that the design limitations on the use of SNCR at Charlevoix could be overcome. That approach fails to provide the source-specific, case-by-case evaluation that must support a BART emissions limit.

A. Determining BART Requires More Than Simply Applying A Percentage Reduction To All Sources.

EPA's regulations enumerate six source-specific factors that must be evaluated when setting BART limits:

> The emission limitation must be established, on a case-by-case basis, taking into consideration [1] the technology available, [2] the costs of compliance, [3] the energy and non-air quality environmental impacts of compliance, [4] any pollution control equipment in use or in existence at the source, [5] the remaining useful life of the source, and [6] the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

40 CFR § 51.301; *see also* 42 U.S.C. § 7491(g)(2).

EPA acknowledged that such a plant-specific evaluation is required. When discussing its reasons for allowing the Lafarge Alpena plant to have much higher BART limits than Charlevoix, EPA stated: "With the consideration of source-specific factors, as required in determining BART at each facility, dissimilarities among facilities can yield dissimilarities in control requirements." 77 Fed. Reg. at 71538; A.R. No. 2, Appx. at 6. But EPA failed to adhere to that same requirement when considering Charlevoix's inherent limitations.

St. Marys acknowledges that design differences among plants could result in NOx limits for some of its competitors that were much higher than the 2.8 lbs/ton on a 30-day rolling average and 2.4 lbs/ton on a 12-month rolling average limits EPA adopted for Charlevoix. St. Marys noted in its comments that EPA recently had set: (1) a BART NOx limit of 4.89 lbs/ton for the Lafarge cement plant in Alpena, Michigan; (2) a BART NOx limit of 6.5 lbs/ton for the Holcim cement plant in Montana; and (3) a BART NOx limit of 8.0 lbs/ton for the Ash Grove cement plant in Montana. A.R. No. 11, Appx. at 433.

But that does not justify EPA's conclusion that a generic SNCR control system would achieve approximately a 50% reduction in NOx emissions from the Charlevoix plant, simply because SNCR has achieved such percentage reductions at other cement plants. 77 Fed. Reg. at 71540; A.R. No. 2, Appx. at 8. It is undisputed that SNCR has achieved such success at a number of plants with high emissions rates and design features compatible with effective use of SNCR. As noted above, the BART limits set for the Lafarge, Holcim, and Ash Grove plants each represented approximately a 50% NOx reduction. *Id*. As a separate example, St. Marys has documented the ability to achieve such significant NOx emissions reductions from its own Dixon, Illinois plant. *Id*.

Simply because SNCR is effective at other locations does not mean that it will achieve the same percentage reductions at Charlevoix. EPA's analysis ignored

the unique, inherent design limitations of the Charlevoix plant and its emissions control systems (the fourth BART factor) and the emissions control technology that might be employed successfully (the first BART factor).

B. The Charlevoix Plant's Design Is Incompatible With Effective SNCR Use.

St. Marys attempted to use SNCR at the Charlevoix plant but that resulted in severe plugging of the system and little improvement in NOx control. Upon acquisition of the Charlevoix plant in 2005, St. Marys hired DeNox Technology (an expert consultant in the control of NOx from cement plants) to assist St. Marys in the examination and implementation of an SNCR system. A.R. No. 11, Appx. at 430. During several short, 10-minute test trials, DeNox experimented with multiple configurations, multiple reagent flow rates, and evaluated different operating temperature profiles to identify the most effective location and operation of an SNCR system. *Id*. at 447-451. Both St. Marys and DeNox had hoped and expected to achieve NOx reductions of about 40 – 60%. *Id*. at 450. Despite their best efforts, the DeNox report concluded: "Overall, SNCR performance was lower than expected. Typically, NOx reduction…is 40-60%; Charlevoix demonstrated 25-30% [NOx reduction]." *Id*. The report further concluded that a "20% overall reduction can be achieved" at the Charlevoix plant using SNCR. *Id*. The report shows that SNCR will have limited effectiveness at Charlevoix under even the best circumstances, when experts are controlling the test sequence. Moreover, the most

effective of these test sequences was accompanied by significant ammonia slip to the atmosphere, meaning that a significant amount of the ammonia reagent injected by the SNCR for NOx control did not react and instead was discharged out of the plant's stack. *Id*. at 430-432.

Michigan carefully reviewed the Charlevoix-specific test data and operational problems associated with SNCR use and concluded that SNCR was not appropriate for the Charlevoix plant A.R. No. 10, Appx. 206-207. By contrast, EPA discounted these site-specific test results and failed to cite any real-world data or counterexamples of plants where inherent design limitations like those faced at Charlevoix had been overcome. Instead, EPA simply speculated that a 50% NOx reduction could be achieved by use of SNCR in the current Charlevoix plant system. This is contrary to EPA's regulations which provide that a particular control technology cannot support a BART determination where the technology is infeasible. 40 C.F.R. Part 51, Appx. Y § IV.D.Step 2. Technology is infeasible where "there are unresolvable technical difficulties with applying the control to the source (e.g., size of the unit, location of the proposed site, operating problems related to specific circumstances of the source, space constraints, reliability, and adverse side effects on the rest of the facility)." *Id.*

Unfortunately, inherent design limitations of the Charlevoix kiln system that make SNCR infeasible are numerous and substantial. SNCR involves injecting

ammonia or urea into the exhaust to react with NOx to form nitrogen and water. A.R. No. 10, Appx. at 259. The injection must take place at a point where the exhaust temperatures are between 1600 and 2000 degrees Fahrenheit, and the injected agents must be present at that temperature for a sufficient time to achieve the proper reaction. *Id*. at 264-266. This process is ineffective at Charlevoix due to the plant system's temperature profile, gas retention time, geometry, and minor elements in the kiln gases. A.R. No. 11, Appx. at 420, 432-439, 448, 458. St. Marys provided to EPA site-specific information for the Charlevoix plant demonstrating that: (i) the calciner/kiln gases do not reach high enough temperatures and are not present for a sufficient period of time (residence time) to allow effective SNCR reactions to occur (*Id*. at 433-435); and (ii) the plant has unique system geometry which causes the system to plug when the SNCR is used, resulting in shut downs of the entire process and unsafe conditions. *Id*. at 420, 432-439, 448, 458. Attempts to use SNCR caused chemical reactions that plugged the plant's flash calcining dry process kiln system. *Id*. This material buildup required shut down of the plant, led to significant downtime, and exposed St. Marys' operating staff to potentially unsafe and dangerous tasks associated with clearing the system. *Id.*

Again, EPA could not counter the facts that St. Marys provided. It simply speculated that the Charlevoix plant could achieve better NOx control without

citing examples of plants with the same design limitations present at the Charlevoix plant. This is arbitrary and capricious because EPA failed to "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n of U.S.*, 463 U.S. at 43.

C. EPA's BART Limits Must Be Vacated.

Contrary to the "case-by-case" evaluation required by the CAA BART program, EPA applied a "one size fits all" approach and merely assumed that SNCR would work at Charlevoix because it has been effective at plants with different designs elsewhere. EPA failed to support its conclusions with facts showing that the inherent design limitations that the Charlevoix plant faces had been overcome. These actions were arbitrary and capricious.

Michigan, on the other hand, had taken all of these individualized plant design characteristics into account when it developed BART emissions limits for the Charlevoix plant in its SIP. Accordingly, if the Court determines that the Charlevoix plant is BART-eligible, EPA's emissions limits should be vacated and replaced by the BART limits that Michigan had adopted in its 2010 SIP.

CONCLUSION

The Court should hold that St. Marys' Charlevoix plant is not BART-eligible because it was "reconstructed" after August 7, 1977. Accordingly, the

emissions limits that EPA imposed should be vacated because they exceed the authority granted by the CAA, are not in accordance with law, and are contrary to EPA's implementing regulations.

Alternatively, if the Court concludes that the Charlevoix plant is BART-eligible, EPA's NOx emissions limits should be vacated and replaced by the BART limits that Michigan had adopted because EPA arbitrarily and capriciously failed to adhere to the CAA's requirement that BART limits be established on a plant-specific, case-by-case basis, taking into consideration the design limitations of the Charlevoix plant.

Respectfully submitted,

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September 22, 2014

CERTIFICATE OF COMPLIANCE WITH TYPE VOLUME LIMITATION

This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because it contains 13,780 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii). The brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because it was prepared in a proportionally spaced typeface using Microsoft Word 2007 in 14-point Times New Roman type.

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CERTIFICATE OF SERVICE

I certify that on September 22, 2014 I served a copy of the foregoing brief upon the following counsel using the Sixth Circuit's electronic case filing system:

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REGIONAL HAZE CONSENT DECREE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

NATIONAL PARKS CONSERVATION ASSOCIATION, MONTANA ENVIRONMENTAL INFORMATION CENTER, GRAND CANYON TRUST, SAN JUAN CITIZENS ALLIANCE, OUR CHILDREN'S EARTH FOUNDATION, PLAINS JUSTICE, POWDER RIVER BASIN RESOURCE COUNCIL, SIERRA CLUB, AND ENVIRONMENTAL DEFENSE FUND Plaintiffs, v. LISA JACKSON, in her official capacity as Administrator, United States Environmental Protection Agency, Defendant.	CIVIL ACTION NO. 1: 11-cv-01548 (ABJ)

PARTIAL CONSENT DECREE

This Partial Consent Decree (hereinafter "Consent Decree" or "decree") is entered into by Plaintiffs National Parks Conservation Association, Montana Environmental Information Center, Grand Canyon Trust, San Juan Citizens Alliance, Our Children's Earth Foundation, Plains Justice, Powder River Basin Resource Council, Sierra Club, and Environmental Defense Fund ("Plaintiffs"), and by Defendant Lisa Jackson, in her official capacity as Administrator of the United States Environmental Protection Agency ("EPA" or "the Administrator").

WHEREAS, Section 110(c) of the Clean Air Act, 42 U.S.C. § 7410(c), requires the Administrator of EPA to promulgate a federal implementation plan ("FIP") within two years of a finding that a state has failed to make a required state implementation plan ("SIP") submittal. The pertinent provision of Section 110(c) states:

(1) The Administrator shall promulgate a Federal implementation plan at any time within 2 years after the Administrator—

(A) finds that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria established under section 110(k)(1)(A).

WHEREAS, on January 15, 2009, EPA found that the following 34 States[1] had failed to submit Clean Air Act SIPs addressing any of the required regional haze SIP elements of 40 C.F.R. § 51.308: Alaska, California, Connecticut, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Texas, Vermont, U.S. Virgin Islands, Virginia, Washington, and Wisconsin. 74 Fed. Reg. 2392, 2393 (Jan. 15, 2009);

WHEREAS, on January 15, 2009 EPA also found that the following five states had submitted some, but not all, of the required regional haze SIP elements set forth at 40 C.F.R. §§ 51.308 and 51.309: Arizona—40 C.F.R. § 51.309(g) and 40 C.F.R. § 51.309(d)(4); Colorado—40 C.F.R. § 51.308(d) and 40 C.F.R. § 51.308(e) for two sources; Michigan—40 C.F.R. § 51.308(d) and 40 C.F.R. § 51.308(e) for six sources; New Mexico—40 C.F.R. § 51.309(g) and 40 C.F.R. § 51.309(d)(4); Wyoming—40 C.F.R. § 51.309(g). 74 Fed. Reg. at 2393;

WHEREAS, on January 15, 2009, EPA stated that its finding "starts the two-year clock for the promulgation by EPA of a FIP. EPA is not required to promulgate a FIP if the state makes the required SIP submittal and EPA takes final action to approve the submittal within two years of EPA's finding." 74 Fed. Reg. at 2393;

WHEREAS, EPA did not, by January 15, 2011, promulgate regional haze FIPs or approve regional haze SIPs for any of the 34 states for which it found on January 15, 2009 a

[1] Throughout this Consent Decree, the term "state" or "State" has the meaning provided in 42 U.S.C. § 7602(d).

failure to submit SIPs addressing any of the required regional haze SIP elements, and EPA also did not, by January 15, 2011, promulgate regional haze FIPs or approve regional haze SIPs correcting the non-submittal deficiencies that EPA found on January 15, 2009 with respect to the regional haze SIP requirements for Arizona, Colorado, Michigan, New Mexico and Wyoming;

WHEREAS to meet the regional haze implementation plan requirements that were due by December 17, 2007 under EPA's regional haze regulations the following states (and one region) submitted regional haze SIPs to EPA prior to January 15, 2009 (hereinafter, "regional haze SIP submittals"), and whereas EPA has yet to take final action on such submittals pursuant to 42 U.S.C. 7410(k): Alabama; Albuquerque, NM; Iowa; Louisiana; Mississippi; Missouri; North Carolina; South Carolina; Tennessee; and West Virginia;

WHEREAS, Plaintiffs served prior notice on the Administrator alleging that her failure to promulgate regional haze FIPs and take final action on regional haze SIPs as described above constituted failure to perform duties that are not discretionary under the Act, and of Plaintiffs' intent to initiate the present action. This notice was provided via certified letters, posted January 19, 2011, and addressed to the Administrator;

WHEREAS, Plaintiffs filed a complaint pursuant to CAA section 304(a)(2), 42 U.S.C. § 7604(a)(2), alleging failure by the Administrator to perform nondiscretionary duties as referenced above;

WHEREAS, during the pendency of this case EPA took final action with respect to regional haze implementation plans for Oklahoma (all BART elements), Kansas, and New Jersey;

WHEREAS, except for Plaintiffs' claim as to EPA's obligations with respect to Florida, Plaintiffs and EPA (collectively, the "Parties") wish to effectuate a settlement of the above-captioned case without expensive and protracted litigation, and without a litigated resolution of any issue of law or fact;

WHEREAS, the Parties consider this Consent Decree to be an adequate and equitable resolution of the claims in the above-captioned case except for Plaintiffs' claim as to EPA's obligations with respect to Florida, and consent to entry of this Consent Decree; and

WHEREAS, the Court, by entering this Consent Decree, finds that this Consent Decree is fair, reasonable, in the public interest, and consistent with the CAA, 42 U.S.C. §§ 7401 *et seq.*

NOW THEREFORE, before the taking of testimony, without trial or determination of any issue of fact or law, and upon the consent of the Parties, it is hereby ORDERED, ADJUDGED, and DECREED that:

1. This Court has subject matter jurisdiction over the claims set forth in the Complaint and to order the relief contained in this Consent Decree.
2. Venue is proper in the United States District Court for the District of Columbia.

Resolution of Claims

3. By the "Proposed Promulgation Deadlines" set forth in Table A below EPA shall sign a notice(s) of proposed rulemaking in which it proposes approval of a SIP, promulgation of a FIP, partial approval of a SIP and promulgation of a partial FIP, or approval of a SIP or promulgation of a FIP in the alternative, for each State therein, that collectively meet the regional haze implementation plan requirements that were due by December 17, 2007 under EPA's regional haze regulations.

4. By the "Final Promulgation Deadlines" set forth in Table A below, EPA shall sign a notice(s) of final rulemaking promulgating a FIP for each State therein to meet the regional haze implementation plan requirements that were due by December 17, 2007 under EPA's regional haze regulations, except where, by such deadline EPA has for a State therein signed a notice of final rulemaking unconditionally approving a SIP, or promulgating a partial FIP and unconditional approval of a portion of a SIP, that collectively meet the regional haze implementation plan requirements that were due by December 17, 2007 under EPA's regional haze regulations.

TABLE A

Deadlines for EPA to Sign Notice of Promulgation for Proposed and Final Regional Haze FIPs and/or Approval of SIPs ("RH" = Regional Haze)

Proposed Promulgation Deadlines	Final Promulgation Deadlines	State
	December 13, 2011	Nevada (except BART determination for Reid Gardner Generating Station)
	March 15, 2012	District of Columbia Maine
	March 29, 2012	South Dakota
	May 30, 2012	Minnesota (except BART determination for the Arcelor-Mittal, Hibbing Taconite, Northshore Mining, United Taconite, U.S Steel – Keetac, and U.S. Steel – Minntac taconite ore processing facilities) Illinois Indiana Ohio Pennsylvania Virginia
	June 15, 2012	Alaska (all BART elements) Georgia Maryland Nebraska New Hampshire Rhode Island Vermont Wisconsin
March 15, 2012	**July 13, 2012**	Connecticut
April 2, 2012	**July 13, 2012**	Nevada (BART determination for Reid Gardner Generating Station)
April 16, 2012	**August 15, 2012**	New Mexico (all remaining RH SIP elements)
April 16, 2012	**August 16, 2012**	New York

May 14, 2012	**September 14, 2012**	Hawaii Virgin Islands
May 15, 2012	**September 14. 2012**	Massachusetts
May 15, 2012	**November 15, 2012**	Alaska (all remaining RH SIP elements) Arizona Idaho (all remaining RH SIP elements) Oklahoma (all remaining RH SIP elements) Oregon (all remaining RH SIP elements) Texas Washington
July 13, 2012	**November 15, 2012**	Michigan Minnesota (BART determination for the Arcelor-Mittal, Hibbing Taconite, Northshore Mining, United Taconite, U.S Steel – Keetac, and U.S. Steel – Minntac taconite ore processing facilities) taconite ore processing facilities)

5. By the "Proposed Promulgation Deadlines" set forth in Table B below EPA shall sign a notice of proposed rulemaking in which it proposes to approve or disapprove, in accordance with 42 U.S.C. § 7410(k), the regional haze SIP submittals for each state or area indicated.

6. By the "Final Promulgation Deadlines" set forth in Table B below, EPA shall sign a notice of final rulemaking in which it approves or disapproves, in accordance with 42 U.S.C. § 7410(k), the regional haze SIP submittals for each state or area indicated.

TABLE B

Deadlines for EPA to Sign Notices of Promulgation for Proposed and Final Approval or Disapproval of Regional Haze SIP Submissions

Proposed Promulgation Deadlines	**Final Promulgation Deadlines**	**State or Area**
	March 15, 2012	West Virginia
	April 15, 2012	Tennessee (except for BART determination for Eastman Chemical)
	May 15, 2012	Tennessee (BART determination for Eastman Chemical)
February 15, 2012	**June 15, 2012**	Alabama Iowa Louisiana Mississippi Missouri North Carolina South Carolina
April 16, 2012	**August 15, 2012**	Albuquerque, NM

General Provisions

7. The deadlines in Table A or B may be extended for a period of 60 days or less by written stipulation executed by counsel for EPA and Plaintiffs and filed with the Court. Any other extension of a deadline in Table A or B may be approved by the Court upon motion made pursuant to the Federal Rules of Civil Procedure by EPA and upon consideration of any response by Plaintiffs and reply by EPA.

8. EPA agrees that Plaintiffs are entitled to recover their costs of litigation (including attorneys' fees) ("litigation costs") incurred in this matter pursuant to 42 U.S.C. § 7604(d). The deadline for the filing of any motion for litigation costs for activities performed prior to the lodging of this decree with the Court is hereby extended for a period of 120 days. During this time the Parties shall seek to resolve informally any claim for litigation costs, and if they cannot reach a resolution, Plaintiffs may seek such litigation costs from the Court. The Court shall retain jurisdiction to resolve any request for litigation costs. Plaintiffs reserve their right to seek litigation costs for any work performed after the lodging of this Consent Decree. EPA does not concede that Plaintiffs will be entitled to fees for any work performed after the lodging of the Consent Decree, and the parties reserve all claims and defenses with respect to any future costs of litigation claim.

9. No later than ten business days following signature by the Administrator or her delegatee of the notice of any proposed or final rulemaking referenced above, EPA shall deliver the notice to the Office of the Federal Register for review and prompt publication. Following such delivery to the Office of the Federal Register, EPA shall not take any action (other than is necessary to correct any typographical errors or

other errors in form) to delay or otherwise interfere with publication of such notice in the Federal Register. EPA shall make available to Plaintiffs copies of the notices referenced herein within five business days following signature by the Administrator or her delegatee.

10. Plaintiffs and EPA shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

11. Nothing in this Consent Decree shall be construed to limit or modify any discretion accorded EPA by the CAA or by general principles of administrative law in taking the actions which are the subject of this Consent Decree, including the discretion to alter, amend, or revise any responses or final actions contemplated by this Consent Decree. EPA's obligation to perform the actions specified by Paragraphs 3 through 6 does not constitute a limitation or modification of EPA's discretion within the meaning of this paragraph.

12. Nothing in this Consent Decree shall be construed as an admission of any issue of fact or law or to waive or limit any claim or defense, on any grounds, related to any final action EPA may take with respect to the SIPs or FIPs identified in paragraphs 3 through 6 of this Consent Decree.

13. Nothing in this Consent Decree shall be construed to confer upon the district court jurisdiction to review any final decision made by EPA pursuant to this Consent Decree. Nothing in this Consent Decree shall be construed to confer upon the district court jurisdiction to review any issues that are within the exclusive jurisdiction of the United States Court of Appeals pursuant to 42 U.S.C. §§ 7607(b)(1) and 7661d.

Nothing in this Consent Decree shall be construed to waive any remedies or defenses the Parties may have under 42 U.S.C. § 7607(b)(1).

14. The Parties recognize and acknowledge that the obligations imposed upon EPA under this Consent Decree can only be undertaken using appropriated funds legally available for such purpose. No provision of this Consent Decree shall be interpreted as or constitute a commitment or requirement that EPA obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or any other applicable provision of law.

15. Any notices required or provided for by this Consent Decree shall be made in writing and sent via e-mail to the following:

For Plaintiffs:

David Baron
dbaron@earthjustice.org

Reed Zars
rzars@lariat.org

ForDefendant:

Eileen T. McDonough
eileen.mcdonough@usdoj.gov

Lea Anderson
anderson.lea@epa.gov

16. In the event of a dispute among the Parties concerning the interpretation or implementation of any aspect of this Consent Decree, the disputing Party shall provide the other Party with a written notice outlining the nature of the dispute and requesting informal negotiations. If the Parties cannot reach an agreed-upon resolution, any Party may move the Court to resolve the dispute.

17. No motion or other proceeding seeking to enforce this Consent Decree or for contempt of court shall be properly filed unless the Party seeking to enforce this Consent Decree has followed the procedure set forth in Paragraph 16.

18. The Court shall retain jurisdiction to determine and effectuate compliance with this Consent Decree, to resolve any disputes thereunder, and to consider any requests for costs of litigation (including reasonable attorneys' fees). After EPA's obligations under Paragraphs 3 through 6 have been completed, EPA may move to have this consent decree terminated. Plaintiffs shall have 14 days in which to respond to such motion.

19. It is hereby expressly understood and agreed that this Consent Decree was jointly drafted by the Parties and that any and all rules of construction to the effect that ambiguity is construed against the drafting party shall be inapplicable in any dispute concerning the terms, meaning, or interpretation of this Consent Decree.

20. The undersigned certify that they are fully authorized by the Party or Parties they represent to bind that Party or those Parties to the terms of this Consent Decree.

21. This decree does not resolve the claim in Plaintiffs' complaint regarding EPA's obligations with respect to Florida. Plaintiffs reserve the right to seek relief for that claim on any and all grounds. EPA agrees not to oppose Plaintiffs' prosecution of their claim with respect to Florida for any reason based upon the entry of the decree.

SO ORDERED this 30th day of March 2012.

HON. AMY BERMAN JACKSON
United States District Judge

SO AGREED:

FOR PLAINTIFFS

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STATUTORY AND REGULATORY ADDENDUM

of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant from the following types of stationary sources: fossil-fuel fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than fifty tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than two hundred and fifty million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding three hundred thousand barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities. Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant. This term shall not include new or modified facilities which are nonprofit health or education institutions which have been exempted by the State.

(2)(A) The term ''commenced'' as applied to construction of a major emitting facility means that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (i) begun, or caused to begin, a continuous program of physical onsite construction of the facility or (ii) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed within a reasonable time.

(B) The term ''necessary preconstruction approvals or permits'' means those permits or approvals, required by the permitting authority as a precondition to undertaking any activity under clauses (i) or (ii) of subparagraph (A) of this paragraph.

(C) The term ''construction'' when used in connection with any source or facility, includes the modification (as defined in section 7411(a) of this title) of any source or facility.

(3) The term ''best available control technology'' means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant. In no event shall application of ''best available control technology'' result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to section 7411 or 7412 of this title. Emissions from any source utilizing clean fuels, or any other means, to comply with this paragraph shall not be allowed to increase above levels that would have been required under this paragraph as it existed prior to November 15, 1990.

(4) The term ''baseline concentration'' means, with respect to a pollutant, the ambient concentration levels which exist at the time of the first application for a permit in an area subject to this part, based on air quality data available in the Environmental Protection Agency or a State air pollution control agency and on such monitoring data as the permit applicant is required to submit. Such ambient concentration levels shall take into account all projected emissions in, or which may affect, such area from any major emitting facility on which construction commenced prior to January 6, 1975, but which has not begun operation by the date of the baseline air quality concentration determination. Emissions of sulfur oxides and particulate matter from any major emitting facility on which construction commenced after January 6, 1975, shall not be included in the baseline and shall be counted against the maximum allowable increases in pollutant concentrations established under this part.

(July 14, 1955, ch. 360, title I, §169, as added Pub. L. 95–95, title I, §127(a), Aug. 7, 1977, 91 Stat. 740; amended Pub. L. 95–190, §14(a)(54), Nov. 16, 1977, 91 Stat. 1402; Pub. L. 101–549, title III, §305(b), title IV, §403(d), Nov. 15, 1990, 104 Stat. 2583, 2631.)

AMENDMENTS

1990—Par. (1). Pub. L. 101–549, §305(b), struck out ''two hundred and'' after ''municipal incinerators capable of charging more than''.

Par. (3). Pub. L. 101–549, §403(d), directed the insertion of '', clean fuels,'' after ''including fuel cleaning,'', which was executed by making the insertion after ''including fuel cleaning'' to reflect the probable intent of Congress, and inserted at end ''Emissions from any source utilizing clean fuels, or any other means, to comply with this paragraph shall not be allowed to increase above levels that would have been required under this paragraph as it existed prior to November 15, 1990.''

1977—Par. (2)(C). Pub. L. 95–190 added subpar. (C).

STUDY OF MAJOR EMITTING FACILITIES WITH POTENTIAL OF EMITTING 250 TONS PER YEAR

Section 127(b) of Pub. L. 95–95 directed Administrator, within 1 year after Aug. 7, 1977, to report to Congress on consequences of that portion of definition of ''major emitting facility'' under this subpart which applies to facilities with potential to emit 250 tons per year or more.

SUBPART II—VISIBILITY PROTECTION

CODIFICATION

As originally enacted, subpart II of part C of subchapter I of this chapter was added following section 7478 of this title. Pub. L. 95–190, §14(a)(53), Nov. 16, 1977,

91 Stat. 1402, struck out subpart II and inserted such subpart following section 7479 of this title.

§ 7491. Visibility protection for Federal class I areas

(a) Impairment of visibility; list of areas; study and report

(1) Congress hereby declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.

(2) Not later than six months after August 7, 1977, the Secretary of the Interior in consultation with other Federal land managers shall review all mandatory class I Federal areas and identify those where visibility is an important value of the area. From time to time the Secretary of the Interior may revise such identifications. Not later than one year after August 7, 1977, the Administrator shall, after consultation with the Secretary of the Interior, promulgate a list of mandatory class I Federal areas in which he determines visibility is an important value.

(3) Not later than eighteen months after August 7, 1977, the Administrator shall complete a study and report to Congress on available methods for implementing the national goal set forth in paragraph (1). Such report shall include recommendations for—

(A) methods for identifying, characterizing, determining, quantifying, and measuring visibility impairment in Federal areas referred to in paragraph (1), and

(B) modeling techniques (or other methods) for determining the extent to which manmade air pollution may reasonably be anticipated to cause or contribute to such impairment, and

(C) methods for preventing and remedying such manmade air pollution and resulting visibility impairment.

Such report shall also identify the classes or categories of sources and the types of air pollutants which, alone or in conjunction with other sources or pollutants, may reasonably be anticipated to cause or contribute significantly to impairment of visibility.

(4) Not later than twenty-four months after August 7, 1977, and after notice and public hearing, the Administrator shall promulgate regulations to assure (A) reasonable progress toward meeting the national goal specified in paragraph (1), and (B) compliance with the requirements of this section.

(b) Regulations

Regulations under subsection (a)(4) of this section shall—

(1) provide guidelines to the States, taking into account the recommendations under subsection (a)(3) of this section on appropriate techniques and methods for implementing this section (as provided in subparagraphs (A) through (C) of such subsection (a)(3)), and

(2) require each applicable implementation plan for a State in which any area listed by the Administrator under subsection (a)(2) of this section is located (or for a State the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area) to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal specified in subsection (a) of this section, including—

(A) except as otherwise provided pursuant to subsection (c) of this section, a requirement that each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years as of such date, and which, as determined by the State (or the Administrator in the case of a plan promulgated under section 7410(c) of this title) emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area, shall procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology, as determined by the State (or the Administrator in the case of a plan promulgated under section 7410(c) of this title) for controlling emissions from such source for the purpose of eliminating or reducing any such impairment, and

(B) a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal specified in subsection (a) of this section.

In the case of a fossil-fuel fired generating powerplant having a total generating capacity in excess of 750 megawatts, the emission limitations required under this paragraph shall be determined pursuant to guidelines, promulgated by the Administrator under paragraph (1).

(c) Exemptions

(1) The Administrator may, by rule, after notice and opportunity for public hearing, exempt any major stationary source from the requirement of subsection (b)(2)(A) of this section, upon his determination that such source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility in any mandatory class I Federal area.

(2) Paragraph (1) of this subsection shall not be applicable to any fossil-fuel fired powerplant with total design capacity of 750 megawatts or more, unless the owner or operator of any such plant demonstrates to the satisfaction of the Administrator that such powerplant is located at such distance from all areas listed by the Administrator under subsection (a)(2) of this section that such powerplant does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to significant impairment of visibility in any such area.

(3) An exemption under this subsection shall be effective only upon concurrence by the appropriate Federal land manager or managers with the Administrator's determination under this subsection.

(d) Consultations with appropriate Federal land managers

Before holding the public hearing on the proposed revision of an applicable implementation

plan to meet the requirements of this section, the State (or the Administrator, in the case of a plan promulgated under section 7410(c) of this title) shall consult in person with the appropriate Federal land manager or managers and shall include a summary of the conclusions and recommendations of the Federal land managers in the notice to the public.

(e) Buffer zones

In promulgating regulations under this section, the Administrator shall not require the use of any automatic or uniform buffer zone or zones.

(f) Nondiscretionary duty

For purposes of section 7604(a)(2) of this title, the meeting of the national goal specified in subsection (a)(1) of this section by any specific date or dates shall not be considered a ''nondiscretionary duty'' of the Administrator.

(g) Definitions

For the purpose of this section—

(1) in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements;

(2) in determining best available retrofit technology the State (or the Administrator in determining emission limitations which reflect such technology) shall take into consideration the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology;

(3) the term ''manmade air pollution'' means air pollution which results directly or indirectly from human activities;

(4) the term ''as expeditiously as practicable'' means as expeditiously as practicable but in no event later than five years after the date of approval of a plan revision under this section (or the date of promulgation of such a plan revision in the case of action by the Administrator under section 7410(c) of this title for purposes of this section);

(5) the term ''mandatory class I Federal areas'' means Federal areas which may not be designated as other than class I under this part;

(6) the terms ''visibility impairment'' and ''impairment of visibility'' shall include reduction in visual range and atmospheric discoloration; and

(7) the term ''major stationary source'' means the following types of stationary sources with the potential to emit 250 tons or more of any pollutant: fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than 250 million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities.

(July 14, 1955, ch. 360, title I, §169A, as added Pub. L. 95–95, title I, §128, Aug. 7, 1977, 91 Stat. 742.)

EFFECTIVE DATE

Subpart effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7492. Visibility

(a) Studies

(1) The Administrator, in conjunction with the National Park Service and other appropriate Federal agencies, shall conduct research to identify and evaluate sources and source regions of both visibility impairment and regions that provide predominantly clean air in class I areas. A total of $8,000,000 per year for 5 years is authorized to be appropriated for the Environmental Protection Agency and the other Federal agencies to conduct this research. The research shall include—

(A) expansion of current visibility related monitoring in class I areas;

(B) assessment of current sources of visibility impairing pollution and clean air corridors;

(C) adaptation of regional air quality models for the assessment of visibility;

(D) studies of atmospheric chemistry and physics of visibility.

(2) Based on the findings available from the research required in subsection (a)(1) of this section as well as other available scientific and technical data, studies, and other available information pertaining to visibility source-receptor relationships, the Administrator shall conduct an assessment and evaluation that identifies, to the extent possible, sources and source regions of visibility impairment including natural sources as well as source regions of clear air for class I areas. The Administrator shall produce interim findings from this study within 3 years after November 15, 1990.

(b) Impacts of other provisions

Within 24 months after November 15, 1990, the Administrator shall conduct an assessment of the progress and improvements in visibility in class I areas that are likely to result from the implementation of the provisions of the Clean Air Act Amendments of 1990 other than the provisions of this section. Every 5 years thereafter

the Administrator shall conduct an assessment of actual progress and improvement in visibility in class I areas. The Administrator shall prepare a written report on each assessment and transmit copies of these reports to the appropriate committees of Congress.

(c) Establishment of visibility transport regions and commissions

(1) Authority to establish visibility transport regions

Whenever, upon the Administrator's motion or by petition from the Governors of at least two affected States, the Administrator has reason to believe that the current or projected interstate transport of air pollutants from one or more States contributes significantly to visibility impairment in class I areas located in the affected States, the Administrator may establish a transport region for such pollutants that includes such States. The Administrator, upon the Administrator's own motion or upon petition from the Governor of any affected State, or upon the recommendations of a transport commission established under subsection (b) of this section[1] may—

(A) add any State or portion of a State to a visibility transport region when the Administrator determines that the interstate transport of air pollutants from such State significantly contributes to visibility impairment in a class I area located within the transport region, or

(B) remove any State or portion of a State from the region whenever the Administrator has reason to believe that the control of emissions in that State or portion of the State pursuant to this section will not significantly contribute to the protection or enhancement of visibility in any class I area in the region.

(2) Visibility transport commissions

Whenever the Administrator establishes a transport region under subsection (c)(1) of this section, the Administrator shall establish a transport commission comprised of (as a minimum) each of the following members:

(A) the Governor of each State in the Visibility Transport Region, or the Governor's designee;

(B) The[2] Administrator or the Administrator's designee; and

(C) A[2] representative of each Federal agency charged with the direct management of each class I area or areas within the Visibility Transport Region.

(3) Ex officio members

All representatives of the Federal Government shall be ex officio members.

(4) Federal Advisory Committee Act

The visibility transport commissions shall be exempt from the requirements of the Federal Advisory Committee Act [5 U.S.C. App.].

(d) Duties of visibility transport commissions

A Visibility Transport Commission—

(1) shall assess the scientific and technical data, studies, and other currently available information, including studies conducted pursuant to subsection (a)(1) of this section, pertaining to adverse impacts on visibility from potential or projected growth in emissions from sources located in the Visibility Transport Region; and

(2) shall, within 4 years of establishment, issue a report to the Administrator recommending what measures, if any, should be taken under this chapter to remedy such adverse impacts. The report required by this subsection shall address at least the following measures:

(A) the establishment of clean air corridors, in which additional restrictions on increases in emissions may be appropriate to protect visibility in affected class I areas;

(B) the imposition of the requirements of part D of this subchapter affecting the construction of new major stationary sources or major modifications to existing sources in such clean air corridors specifically including the alternative siting analysis provisions of section 7503(a)(5) of this title; and

(C) the promulgation of regulations under section 7491 of this title to address long range strategies for addressing regional haze which impairs visibility in affected class I areas.

(e) Duties of Administrator

(1) The Administrator shall, taking into account the studies pursuant to subsection (a)(1) of this section and the reports pursuant to subsection (d)(2) of this section and any other relevant information, within eighteen months of receipt of the report referred to in subsection (d)(2) of this section, carry out the Administrator's regulatory responsibilities under section 7491 of this title, including criteria for measuring ''reasonable progress'' toward the national goal.

(2) Any regulations promulgated under section 7491 of this title pursuant to this subsection shall require affected States to revise within 12 months their implementation plans under section 7410 of this title to contain such emission limits, schedules of compliance, and other measures as may be necessary to carry out regulations promulgated pursuant to this subsection.

(f) Grand Canyon visibility transport commission

The Administrator pursuant to subsection (c)(1) of this section shall, within 12 months, establish a visibility transport commission for the region affecting the visibility of the Grand Canyon National Park.

(July 14, 1955, ch. 360, title I, § 169B, as added Pub. L. 101–549, title VIII, § 816, Nov. 15, 1990, 104 Stat. 2695.)

REFERENCES IN TEXT

The Clean Air Act Amendments of 1990, referred to in subsec. (b), probably means Pub. L. 101–549, Nov. 15, 1990, 104 Stat. 2399. For complete classification of this Act to the Code, see Short Title note set out under section 7401 of this title and Tables.

The Federal Advisory Committee Act, referred to in subsec. (c)(4), is Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

[1] So in original. Words ''subsection (b) of this section'' probably should be ''paragraph (2)''.

[2] So in original. Probably should not be capitalized.

emption shall (A) promptly notify the Administrator of such exemption and the justification therefor; (B) review the necessity for each such exemption annually; and (C) report to the Administrator annually all such exemptions in effect. Exemptions granted pursuant to this section shall be for a period not to exceed one year. Additional exemptions may be granted for periods not to exceed one year upon the making of a new determination by the head of the Federal agency concerned.

(2) The Administrator may, by rule or regulation, exempt any or all Federal agencies from any or all of the provisions of this Order with respect to any class or classes of contracts, grants, or loans, which (A) involve less than specified dollar amounts, or (B) have a minimal potential impact upon the environment, or (C) involve persons who are not prime contractors or direct recipients of Federal assistance by way of contracts, grants, or loans.

(b) Federal agencies shall reconsider any exemption granted under subsection (a) whenever requested to do so by the Administrator.

(c) The Administrator shall annually notify the President and the Congress of all exemptions granted, or in effect, under this Order during the preceding year.

SEC. 9. *Related Actions*. The imposition of any sanction or penalty under or pursuant to this Order shall not relieve any person of any legal duty to comply with any provisions of the Air Act or the Water Act.

SEC. 10. *Applicability*. This Order shall not apply to contracts, grants, or loans involving the use of facilities located outside the United States.

SEC. 11. *Uniformity*. Rules, regulations, standards, and guidelines issued pursuant to this order and section 508 of the Water Act [33 U.S.C. 1368] shall, to the maximum extent feasible, be uniform with regulations issued pursuant to this order, Executive Order No. 11602 of June 29, 1971 [formerly set out above], and section 306 of the Air Act [this section].

SEC. 12. *Order Superseded*. Executive Order No. 11602 of June 29, 1971, is hereby superseded.

RICHARD NIXON.

§ 7607. Administrative proceedings and judicial review

(a) Administrative subpenas; confidentiality; witnesses

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4)[1] or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the[2] chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),,[3] the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subparagraph,[4] the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Judicial review

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title,,[3] any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of this title), any determination under section 7521(b)(5)[1] of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title, under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I of this chapter) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and pub-

[1] See References in Text note below.

[2] So in original. Probably should be ''this''.

[3] So in original.

[4] So in original. Probably should be ''subsection,''.

lishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

(c) Additional evidence

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to[5] the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(d) Rulemaking

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV–A of this chapter (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter orders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI of this chapter (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I of this chapter (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II of this chapter,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV–A of this chapter (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of title 5.

[5] So in original. The word ''to'' probably should not appear.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a ''rule''). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the ''comment period''). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the record of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

(e) Other methods of judicial review not authorized

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

(f) Costs

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

(h) Public participation

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section[6] 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

(July 14, 1955, ch. 360, title III, §307, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 92–157, title III, §302(a), Nov. 18, 1971, 85 Stat. 464; Pub. L. 93–319, §6(c), June 22, 1974, 88 Stat. 259; Pub. L. 95–95, title III, §§303(d), 305(a), (c), (f)–(h), Aug. 7, 1977, 91 Stat. 772, 776, 777; Pub. L. 95–190, §14(a)(79), (80), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title I, §§108(p), 110(5), title III, §302(g), (h), title VII, §§702(c), 703, 706, 707(h), 710(b), Nov. 15, 1990, 104 Stat. 2469, 2470, 2574, 2681–2684.)

REFERENCES IN TEXT

Section 7521(b)(4) of this title, referred to in subsec. (a), was repealed by Pub. L. 101–549, title II, §230(2), Nov. 15, 1990, 104 Stat. 2529.

Section 7521(b)(5) of this title, referred to in subsec. (b)(1), was repealed by Pub. L. 101–549, title II, §230(3), Nov. 15, 1990, 104 Stat. 2529.

Section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977), referred to in subsec. (b)(1), was in the original ''section 119(c)(2)(A), (B), or (C) (as in effect before the date of enactment of the Clean Air Act Amendments of 1977)'', meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, §3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413(d) of this title was subsequently amended generally by Pub. L. 101–549, title VII, §701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

Part C of subchapter I of this chapter, referred to in subsec. (d)(1)(J), was in the original ''subtitle C of title I'', and was translated as reading ''part C of title I'' to reflect the probable intent of Congress, because title I does not contain subtitles.

CODIFICATION

In subsec. (h), ''subchapter II of chapter 5 of title 5'' was substituted for ''the Administrative Procedures Act'' on authority of Pub. L. 89–554, §7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

Section was formerly classified to section 1857h–5 of this title.

PRIOR PROVISIONS

A prior section 307 of act July 14, 1955, was renumbered section 314 by Pub. L. 91–604 and is classified to section 7614 of this title.

Another prior section 307 of act July 14, 1955, ch. 360, title III, formerly §14, as added Dec. 17, 1963, Pub. L. 88–206, §1, 77 Stat. 401, was renumbered section 307 by Pub. L. 89–272, renumbered section 310 by Pub. L. 90–148, and renumbered section 317 by Pub. L. 91–604, and is set out as a Short Title note under section 7401 of this title.

[6] So in original. Probably should be ''sections''.

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, § 703, struck out par. (1) designation at beginning, inserted provisions authorizing issuance of subpoenas and administration of oaths for purposes of investigations, monitoring, reporting requirements, entries, compliance inspections, or administrative enforcement proceedings under this chapter, and struck out ''or section 7521(b)(5)'' after ''section 7410(f)''.

Subsec. (b)(1). Pub. L. 101–549, § 706(2), which directed amendment of second sentence by striking ''under section 7413(d) of this title'' immediately before ''under section 7419 of this title'', was executed by striking ''under section 7413(d) of this title,'' before ''under section 7419 of this title'', to reflect the probable intent of Congress.

Pub. L. 101–549, § 706(1), inserted at end: ''The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.''

Pub. L. 101–549, § 702(c), inserted ''or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title,'' before ''or any other final action of the Administrator''.

Pub. L. 101–549, § 302(g), substituted ''section 7412'' for ''section 7412(c)''.

Subsec. (b)(2). Pub. L. 101–549, § 707(h), inserted sentence at end authorizing challenge to deferrals of performance of nondiscretionary statutory actions.

Subsec. (d)(1)(C). Pub. L. 101–549, § 110(5)(A), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: ''the promulgation or revision of any standard of performance under section 7411 of this title or emission standard under section 7412 of this title,''.

Subsec. (d)(1)(D), (E). Pub. L. 101–549, § 302(h), added subpar. (D) and redesignated former subpar. (D) as (E). Former subpar. (E) redesignated (F).

Subsec. (d)(1)(F). Pub. L. 101–549, § 302(h), redesignated subpar. (E) as (F). Former subpar. (F) redesignated (G).

Pub. L. 101–549, § 110(5)(B), amended subpar. (F) generally. Prior to amendment, subpar. (F) read as follows: ''promulgation or revision of regulations pertaining to orders for coal conversion under section 7413(d)(5) of this title (but not including orders granting or denying any such orders),''.

Subsec. (d)(1)(G), (H). Pub. L. 101–549, § 302(h), redesignated subpars. (F) and (G) as (G) and (H), respectively. Former subpar. (H) redesignated (I).

Subsec. (d)(1)(I). Pub. L. 101–549, § 710(b), which directed that subpar. (H) be amended by substituting ''subchapter VI of this chapter'' for ''part B of subchapter I of this chapter'', was executed by making the substitution in subpar. (I), to reflect the probable intent of Congress and the intervening redesignation of subpar. (H) as (I) by Pub. L. 101–549, § 302(h), see below.

Pub. L. 101–549, § 302(h), redesignated subpar. (H) as (I). Former subpar. (I) redesignated (J).

Subsec. (d)(1)(J) to (M). Pub. L. 101–549, § 302(h), redesignated subpars. (I) to (L) as (J) to (M), respectively. Former subpar. (M) redesignated (N).

Subsec. (d)(1)(N). Pub. L. 101–549, § 302(h), redesignated subpar. (M) as (N). Former subpar. (N) redesignated (O).

Pub. L. 101–549, § 110(5)(C), added subpar. (N) and redesignated former subpar. (N) as (U).

Subsec. (d)(1)(O) to (T). Pub. L. 101–549, § 302(h), redesignated subpars. (N) to (S) as (O) to (T), respectively. Former subpar. (T) redesignated (U).

Pub. L. 101–549, § 110(5)(C), added subpars. (O) to (T).

Subsec. (d)(1)(U). Pub. L. 101–549, § 302(h), redesignated subpar. (T) as (U). Former subpar. (U) redesignated (V).

Pub. L. 101–549, § 110(5)(C), redesignated former subpar. (N) as (U).

Subsec. (d)(1)(V). Pub. L. 101–549, § 302(h), redesignated subpar. (U) as (V).

Subsec. (h). Pub. L. 101–549, § 108(p), added subsec. (h).

1977—Subsec. (b)(1). Pub. L. 95–190 in text relating to filing of petitions for review in the United States Court of Appeals for the District of Columbia inserted provision respecting requirements under sections 7411 and 7412 of this title, and substituted provisions authorizing review of any rule issued under section 7413, 7419, or 7420 of this title, for provisions authorizing review of any rule or order issued under section 7420 of this title, relating to noncompliance penalties, and in text relating to filing of petitions for review in the United States Court of Appeals for the appropriate circuit inserted provision respecting review under section 7411(j), 7412(c), 7413(d), or 7419 of this title, provision authorizing review under section 1857c–10(c)(2)(A), (B), or (C) to the period prior to Aug. 7, 1977, and provisions authorizing review of denials or disapprovals by the Administrator under subchapter I of this chapter.

Pub. L. 95–95, § 305(c), (h), inserted rules or orders issued under section 7420 of this title (relating to noncompliance penalties) and any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter to the enumeration of actions of the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the District of Columbia, added the approval or promulgation by the Administrator of orders under section 7420 of this title, or any other final action of the Administrator under this chapter which is locally or regionally applicable to the enumeration of actions by the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the appropriate circuit, inserted provision that petitions otherwise capable of being filed in the Court of Appeals for the appropriate circuit may be filed only in the Court of Appeals for the District of Columbia if the action is based on a determination of nationwide scope, and increased from 30 days to 60 days the period during which the petition must be filed.

Subsec. (d). Pub. L. 95–95, § 305(a), added subsec. (d).

Subsec. (e). Pub. L. 95–95, § 303(d), added subsec. (e).

Subsec. (f). Pub. L. 95–95, § 305(f), added subsec. (f).

Subsec. (g). Pub. L. 95–95, § 305(g), added subsec. (g).

1974—Subsec. (b)(1). Pub. L. 93–319 inserted reference to the Administrator's action under section 1857c–10(c)(2)(A), (B), or (C) of this title or under regulations thereunder and substituted reference to the filing of a petition within 30 days from the date of promulgation, approval, or action for reference to the filing of a petition within 30 days from the date of promulgation or approval.

1971—Subsec. (a)(1). Pub. L. 92–157 substituted reference to section ''7545(c)(3)'' for ''7545(c)(4)'' of this title.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other

officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7608. Mandatory licensing

Whenever the Attorney General determines, upon application of the Administrator—

(1) that—

(A) in the implementation of the requirements of section 7411, 7412, or 7521 of this title, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

(B) there are no reasonable alternative methods to accomplish such purpose, and

(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

(July 14, 1955, ch. 360, title III, § 308, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1708.)

CODIFICATION

Section was formerly classified to section 1857h–6 of this title.

PRIOR PROVISIONS

A prior section 308 of act July 14, 1955, was renumbered section 315 by Pub. L. 91–604 and is classified to section 7615 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7609. Policy review

(a) Environmental impact

The Administrator shall review and comment in writing on the environmental impact of any matter relating to duties and responsibilities granted pursuant to this chapter or other provisions of the authority of the Administrator, contained in any (1) legislation proposed by any Federal department or agency, (2) newly authorized Federal projects for construction and any major Federal agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the Federal Government. Such written comment shall be made public at the conclusion of any such review.

(b) Unsatisfactory legislation, action, or regulation

In the event the Administrator determines that any such legislation, action, or regulation is unsatisfactory from the standpoint of public health or welfare or environmental quality, he shall publish his determination and the matter shall be referred to the Council on Environmental Quality.

(July 14, 1955, ch. 360, title III, § 309, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1709.)

CODIFICATION

Section was formerly classified to section 1857h–7 of this title.

PRIOR PROVISIONS

A prior section 309 of act July 14, 1955, ch. 360, title III, formerly § 13, as added Dec. 17, 1963, Pub. L. 88–206, § 1, 77 Stat. 401; renumbered § 306, Oct. 20, 1965, Pub. L. 89–272, title I, § 101(4), 79 Stat. 992; renumbered § 309, Nov. 21, 1967, Pub. L. 90–148, § 2, 81 Stat. 506; renumbered § 316, Dec. 31, 1970, Pub. L. 91–604, § 12(a), 84 Stat. 1705, related to appropriations and was classified to section 1857*l* of this title, prior to repeal by section 306 of Pub. L. 95–95. See section 7626 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7610. Other authority

(a) Authority and responsibilities under other laws not affected

Except as provided in subsection (b) of this section, this chapter shall not be construed as

§ 51.286 Electronic reporting.

States that wish to receive electronic documents must revise the State Implementation Plan to satisfy the requirements of 40 CFR Part 3—(Electronic reporting).

[70 FR 59887, Oct. 13, 2005]

Subpart P—Protection of Visibility

AUTHORITY: Secs. 110, 114, 121, 160–169, 169A, and 301 of the Clean Air Act, (42 U.S.C. 7410, 7414, 7421, 7470–7479, and 7601).

SOURCE: 45 FR 80089, Dec. 2, 1980, unless otherwise noted.

§ 51.300 Purpose and applicability.

(a) *Purpose*. The primary purposes of this subpart are to require States to develop programs to assure reasonable progress toward meeting the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution; and to establish necessary additional procedures for new source permit applicants, States and Federal Land Managers to use in conducting the visibility impact analysis required for new sources under § 51.166. This subpart sets forth requirements addressing visibility impairment in its two principal forms: ''reasonably attributable'' impairment (*i.e.*, impairment attributable to a single source/small group of sources) and regional haze (*i.e.*, widespread haze from a multitude of sources which impairs visibility in every direction over a large area).

(b) *Applicability*—(1) *General Applicability*. The provisions of this subpart pertaining to implementation plan requirements for assuring reasonable progress in preventing any future and remedying any existing visibility impairment are applicable to:

(i) Each State which has a mandatory Class I Federal area identified in part 81, subpart D, of this title, and (ii) each State in which there is any source the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area.

(2) The provisions of this subpart pertaining to implementation plans to address reasonably attributable visibility impairment are applicable to the following States:

Alabama, Alaska, Arizona, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Idaho, Kentucky, Louisiana, Maine, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Virgin Islands, Washington, West Virginia, Wyoming.

(3) The provisions of this subpart pertaining to implementation plans to address regional haze visibility impairment are applicable to all States as defined in section 302(d) of the Clean Air Act (CAA) except Guam, Puerto Rico, American Samoa, and the Northern Mariana Islands.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35763, July 1, 1999]

§ 51.301 Definitions.

For purposes of this subpart:

Adverse impact on visibility means, for purposes of section 307, visibility impairment which interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the Federal Class I area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of visibility impairments, and how these factors correlate with (1) times of visitor use of the Federal Class I area, and (2) the frequency and timing of natural conditions that reduce visibility. This term does not include effects on integral vistas.

Agency means the U.S. Environmental Protection Agency.

BART-eligible source means an *existing stationary facility* as defined in this section.

Best Available Retrofit Technology (BART) means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility. The emission limitation must be

established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

Building, structure, or facility means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities must be considered as part of the same industrial grouping if they belong to the same *Major Group* (*i.e.*, which have the same two-digit code) as described in the *Standard Industrial Classification Manual, 1972* as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101–0066 and 003–005–00176–0 respectively).

Deciview means a measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. The deciview haze index is calculated based on the following equation (for the purposes of calculating deciview, the atmospheric light extinction coefficient must be calculated from aerosol measurements):

Deciview haze index=10 $\ln_e$ (b_{ext}/10 Mm^{-1}).

Where b_{ext}=the atmospheric light extinction coefficient, expressed in inverse megameters (Mm^{-1}).

Existing stationary facility means any of the following stationary sources of air pollutants, including any reconstructed source, which was not in operation prior to August 7, 1962, and was in existence on August 7, 1977, and has the potential to emit 250 tons per year or more of any air pollutant. In determining potential to emit, fugitive emissions, to the extent quantifiable, must be counted.

Fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input,

Coal cleaning plants (thermal dryers),

Kraft pulp mills,

Portland cement plants,

Primary zinc smelters,

Iron and steel mill plants,

Primary aluminum ore reduction plants,

Primary copper smelters,

Municipal incinerators capable of charging more than 250 tons of refuse per day,

Hydrofluoric, sulfuric, and nitric acid plants,

Petroleum refineries,

Lime plants,

Phosphate rock processing plants,

Coke oven batteries,

Sulfur recovery plants,

Carbon black plants (furnace process),

Primary lead smelters,

Fuel conversion plants,

Sintering plants,

Secondary metal production facilities,

Chemical process plants,

Fossil-fuel boilers of more than 250 million British thermal units per hour heat input,

Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels,

Taconite ore processing facilities,

Glass fiber processing plants, and

Charcoal production facilities.

Federal Class I area means any Federal land that is classified or reclassified *Class I.*

Federal Land Manager means the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-Campobello International Park Commission.

Federally enforceable means all limitations and conditions which are enforceable by the Administrator under the Clean Air Act including those requirements developed pursuant to

parts 60 and 61 of this title, requirements within any applicable State Implementation Plan, and any permit requirements established pursuant to § 52.21 of this chapter or under regulations approved pursuant to part 51, 52, or 60 of this title.

Fixed capital cost means the capital needed to provide all of the depreciable components.

Fugitive Emissions means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

Geographic enhancement for the purpose of § 51.308 means a method, procedure, or process to allow a broad regional strategy, such as an emissions trading program designed to achieve greater reasonable progress than BART for regional haze, to accommodate BART for reasonably attributable impairment.

Implementation plan means, for the purposes of this part, any State Implementation Plan, Federal Implementation Plan, or Tribal Implementation Plan.

Indian tribe or *tribe* means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village, which is federally recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

In existence means that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.

In operation means engaged in activity related to the primary design function of the source.

Installation means an identifiable piece of process equipment.

Integral vista means a view perceived from within the mandatory Class I Federal area of a specific landmark or panorama located outside the boundary of the mandatory Class I Federal area.

Least impaired days means the average visibility impairment (measured in deciviews) for the twenty percent of monitored days in a calendar year with the lowest amount of visibility impairment.

Major stationary source and major modification mean major stationary source and major modification, respectively, as defined in § 51.166.

Mandatory Class I Federal Area means any area identified in part 81, subpart D of this title.

Most impaired days means the average visibility impairment (measured in deciviews) for the twenty percent of monitored days in a calendar year with the highest amount of visibility impairment.

Natural conditions includes naturally occurring phenomena that reduce visibility as measured in terms of light extinction, visual range, contrast, or coloration.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

Reasonably attributable means attributable by visual observation or any other technique the State deems appropriate.

Reasonably attributable visibility impairment means visibility impairment that is caused by the emission of air pollutants from one, or a small number of sources.

Reconstruction will be presumed to have taken place where the fixed capital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source. Any

final decision as to whether reconstruction has occurred must be made in accordance with the provisions of § 60.15 (f) (1) through (3) of this title.

Regional haze means visibility impairment that is caused by the emission of air pollutants from numerous sources located over a wide geographic area. Such sources include, but are not limited to, major and minor stationary sources, mobile sources, and area sources.

Secondary emissions means emissions which occur as a result of the construction or operation of an existing stationary facility but do not come from the existing stationary facility. Secondary emissions may include, but are not limited to, emissions from ships or trains coming to or from the existing stationary facility.

Significant impairment means, for purposes of § 51.303, visibility impairment which, in the judgment of the Administrator, interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of the mandatory Class I Federal area. This determination must be made on a case-by-case basis taking into account the geographic extent, intensity, duration, frequency and time of the visibility impairment, and how these factors correlate with (1) times of visitor use of the mandatory Class I Federal area, and (2) the frequency and timing of natural conditions that reduce visibility.

State means ''State'' as defined in section 302(d) of the CAA.

Stationary Source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Visibility impairment means any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.

Visibility in any mandatory Class I Federal area includes any integral vista associated with that area.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35763, 35774, July 1, 1999]

§ 51.302 Implementation control strategies for reasonably attributable visibility impairment.

(a) *Plan Revision Procedures.* (1) Each State identified in § 51.300(b)(2) must have submitted, not later than September 2, 1981, an implementation plan meeting the requirements of this subpart pertaining to reasonably attributable visibility impairment.

(2)(i) The State, prior to adoption of any implementation plan to address reasonably attributable visibility impairment required by this subpart, must conduct one or more public hearings on such plan in accordance with § 51.102.

(ii) In addition to the requirements in § 51.102, the State must provide written notification of such hearings to each affected Federal Land Manager, and other affected States, and must state where the public can inspect a summary prepared by the Federal Land Managers of their conclusions and recommendations, if any, on the proposed plan revision.

(3) Submission of plans as required by this subpart must be conducted in accordance with the procedures in § 51.103.

(b) *State and Federal Land Manager Coordination.* (1) The State must identify to the Federal Land Managers, in writing and within 30 days of the date of promulgation of these regulations, the title of the official to which the Federal Land Manager of any mandatory Class I Federal area can submit a recommendation on the implementation of this subpart including, but not limited to:

(i) A list of integral vistas that are to be listed by the State for the purpose of implementing section 304,

(ii) Identification of impairment of visibility in any mandatory Class I Federal area(s), and

(iii) Identification of elements for inclusion in the visibility monitoring strategy required by section 305.

(2) The State must provide opportunity for consultation, in person and at least 60 days prior to holding any public hearing on the plan, with the Federal Land Manager on the proposed SIP revision required by this subpart.

This consultation must include the opportunity for the affected Federal Land Managers to discuss their:

(i) Assessment of impairment of visibility in any mandatory Class I Federal area, and

(ii) Recommendations on the development of the long-term strategy.

(3) The plan must provide procedures for continuing consultation between the State and Federal Land Manager on the implementation of the visibility protection program required by this subpart.

(c) *General plan requirements for reasonably attributable visibility impairment.* (1) The affected Federal Land Manager may certify to the State, at any time, that there exists reasonably attributable impairment of visibility in any mandatory Class I Federal area.

(2) The plan must contain the following to address reasonably attributable impairment:

(i) A long-term (10–15 years) strategy, as specified in § 51.305 and § 51.306, including such emission limitations, schedules of compliance, and such other measures including schedules for the implementation of the elements of the long-term strategy as may be necessary to make reasonable progress toward the national goal specified in § 51.300(a).

(ii) An assessment of visibility impairment and a discussion of how each element of the plan relates to the preventing of future or remedying of existing impairment of visibility in any mandatory Class I Federal area within the State.

(iii) Emission limitations representing BART and schedules for compliance with BART for each existing stationary facility identified according to paragraph (c)(4) of this section.

(3) The plan must require each source to maintain control equipment required by this subpart and establish procedures to ensure such control equipment is properly operated and maintained.

(4) For any existing reasonably attributable visibility impairment the Federal Land Manager certifies to the State under paragraph (c)(1) of this section, at least 6 months prior to plan submission or revision:

(i) The State must identify and analyze for BART each existing stationary facility which may reasonably be anticipated to cause or contribute to impairment of visibility in any mandatory Class I Federal area where the impairment in the mandatory Class I Federal area is reasonably attributable to that existing stationary facility. The State need not consider any integral vista the Federal Land Manager did not identify pursuant to § 51.304(b) at least 6 months before plan submission.

(ii) If the State determines that technologicial or economic limitations on the applicability of measurement methodology to a particular existing stationary facility would make the imposition of an emission standard infeasible it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof, to require the application of BART. Such standard, to the degree possible, is to set forth the emission reduction to be achieved by implementation of such design, equipment, work practice or operation, and must provide for compliance by means which achieve equivalent results.

(iii) BART must be determined for fossil-fuel fired generating plants having a total generating capacity in excess of 750 megawatts pursuant to ''Guidelines for Determining Best Available Retrofit Technology for Coal-fired Power Plants and Other Existing Stationary Facilities'' (1980), which is incorporated by reference, exclusive of appendix E to the Guidelines, except that options more stringent than NSPS must be considered. Establishing a BART emission limitation equivalent to the NSPS level of control is not a sufficient basis to avoid the analysis of control options required by the guidelines. This document is EPA publication No. 450/3–80–009b and has been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. It is for sale from the U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161. It is also available for inspection from the National Archives and Records Administration

(NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/index.html.*

(iv) The plan must require that each existing stationary facility required to install and operate BART do so as expeditiously as practicable but in no case later than five years after plan approval.

(v) The plan must provide for a BART analysis of any existing stationary facility that might cause or contribute to impairment of visibility in any mandatory Class I Federal area identified under this paragraph (c)(4) at such times, as determined by the Administrator, as new technology for control of the pollutant becomes reasonably available if:

(A) The pollutant is emitted by that existing stationary facility,

(B) Controls representing BART for the pollutant have not previously been required under this subpart, and

(C) The impairment of visibility in any mandatory Class I Federal area is reasonably attributable to the emissions of that pollutant.

[45 FR 80089, Dec. 2, 1980, as amended at 57 FR 40042, Sept. 1, 1992; 64 FR 35764, 35774, July 1, 1999; 69 FR 18803, Apr. 9, 2004; 70 FR 39156, July 6, 2005]

§ 51.303 Exemptions from control.

(a)(1) Any existing stationary facility subject to the requirement under § 51.302 to install, operate, and maintain BART may apply to the Administrator for an exemption from that requirement.

(2) An application under this section must include all available documentation relevant to the impact of the source's emissions on visibility in any mandatory Class I Federal area and a demonstration by the existing stationary facility that it does not or will not, by itself or in combination with other sources, emit any air pollutant which may be reasonably anticipated to cause or contribute to a significant impairment of visibility in any mandatory Class I Federal area.

(b) Any fossil-fuel fired power plant with a total generating capacity of 750 megawatts or more may receive an exemption from BART only if the owner or operator of such power plant demonstrates to the satisfaction of the Administrator that such power plant is located at such a distance from all mandatory Class I Federal areas that such power plant does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to significant impairment of visibility in any such mandatory Class I Federal area.

(c) Application under this § 51.303 must be accompanied by a written concurrence from the State with regulatory authority over the source.

(d) The existing stationary facility must give prior written notice to all affected Federal Land Managers of any application for exemption under this § 51.303.

(e) The Federal Land Manager may provide an initial recommendation or comment on the disposition of such application. Such recommendation, where provided, must be part of the exemption application. This recommendation is not to be construed as the concurrence required under paragraph (h) of this section.

(f) The Administrator, within 90 days of receipt of an application for exemption from control, will provide notice of receipt of an exemption application and notice of opportunity for public hearing on the application.

(g) After notice and opportunity for public hearing, the Administrator may grant or deny the exemption. For purposes of judicial review, final EPA action on an application for an exemption under this § 51.303 will not occur until EPA approves or disapproves the State Implementation Plan revision.

(h) An exemption granted by the Administrator under this § 51.303 will be effective only upon concurrence by all affected Federal Land Managers with the Administrator's determination.

[45 FR 80089, Dec. 2, 1980, as amended by 64 FR 35774, July 1, 1999]

§ 51.304 Identification of integral vistas.

(a) On or before December 31, 1985 the Federal Land Manager may identify any integral vista. The integral vista must be identified according to criteria the Federal Land Manager develops.

These criteria must include, but are not limited to, whether the integral vista is important to the visitor's visual experience of the mandatory Class I Federal area. Adoption of criteria must be preceded by reasonable notice and opportunity for public comment on the proposed criteria.

(b) The Federal Land Manager must notify the State of any integral vistas identified under paragraph (a) of this section, and the reasons therefor.

(c) The State must list in its implementation plan any integral vista the Federal Land Manager identifies at least six months prior to plan submission, and must list in its implementation plan at its earliest opportunity, and in no case later than at the time of the periodic review of the SIP required by §51.306(c), any integral vista the Federal Land Manager identifies after that time.

(d) The State need not in its implementation plan list any integral vista the indentification of which was not made in accordance with the criteria in paragraph (a) of this section. In making this finding, the State must carefully consider the expertise of the Federal Land Manager in making the judgments called for by the criteria for identification. Where the State and the Federal Land Manager disagree on the identification of any integral vista, the State must give the Federal Land Manager an opportunity to consult with the Governor of the State.

[45 FR 80089, Dec. 2, 1980, as amended by 64 FR 35774, July 1, 1999]

§51.305 Monitoring for reasonably attributable visibility impairment.

(a) For the purposes of addressing reasonably attributable visibility impairment, each State containing a mandatory Class I Federal area must include in the plan a strategy for evaluating reasonably attributable visibility impairment in any mandatory Class I Federal area by visual observation or other appropriate monitoring techniques. Such strategy must take into account current and anticipated visibility monitoring research, the availability of appropriate monitoring techniques, and such guidance as is provided by the Agency.

(b) The plan must provide for the consideration of available visibility data and must provide a mechanism for its use in decisions required by this subpart.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35764, July 1, 1999]

§51.306 Long-term strategy requirements for reasonably attributable visibility impairment.

(a)(1) For the purposes of addressing reasonably attributable visibility impairment, each plan must include a long-term (10–15 years) strategy for making reasonable progress toward the national goal specified in §51.300(a). This strategy must cover any existing impairment the Federal Land Manager certifies to the State at least 6 months prior to plan submission, and any integral vista of which the Federal Land Manager notifies the State at least 6 months prior to plan submission.

(2) A long-term strategy must be developed for each mandatory Class I Federal area located within the State and each mandatory Class I Federal area located outside the State which may be affected by sources within the State. This does not preclude the development of a single comprehensive plan for all such areas.

(3) The plan must set forth with reasonable specificity why the long-term strategy is adequate for making reasonable progress toward the national visibility goal, including remedying existing and preventing future impairment.

(b) The State must coordinate its long-term strategy for an area with existing plans and goals, including those provided by the affected Federal Land Managers, that may affect impairment of visibility in any mandatory Class I Federal area.

(c) The plan must provide for periodic review and revision, as appropriate, of the long-term strategy for addressing reasonably attributable visibility impairment. The plan must provide for such periodic review and revision not less frequently than every 3 years until the date of submission of the State's first plan addressing regional haze visibility impairment in accordance with §51.308(b) and (c). On

or before this date, the State must revise its plan to provide for review and revision of a coordinated long-term strategy for addressing reasonably attributable and regional haze visibility impairment, and the State must submit the first such coordinated long-term strategy. Future coordinated long-term strategies must be submitted consistent with the schedule for periodic progress reports set forth in § 51.308(g). Until the State revises its plan to meet this requirement, the State must continue to comply with existing requirements for plan review and revision, and with all emission management requirements in the plan to address reasonably attributable impairment. This requirement does not affect any preexisting deadlines for State submittal of a long-term strategy review (or element thereof) between August 30, 1999, and the date required for submission of the State's first regional haze plan. In addition, the plan must provide for review of the long-term strategy as it applies to reasonably attributable impairment, and revision as appropriate, within 3 years of State receipt of any certification of reasonably attributable impairment from a Federal Land Manager. The review process must include consultation with the appropriate Federal Land Managers, and the State must provide a report to the public and the Administrator on progress toward the national goal. This report must include an assessment of:

(1) The progress achieved in remedying existing impairment of visibility in any mandatory Class I Federal area;

(2) The ability of the long-term strategy to prevent future impairment of visibility in any mandatory Class I Federal area;

(3) Any change in visibility since the last such report, or, in the case of the first report, since plan approval;

(4) Additional measures, including the need for SIP revisions, that may be necessary to assure reasonable progress toward the national visibility goal;

(5) The progress achieved in implementing BART and meeting other schedules set forth in the long-term strategy;

(6) The impact of any exemption granted under § 51.303;

(7) The need for BART to remedy existing visibility impairment of any integral vista listed in the plan since the last such report, or, in the case of the first report, since plan approval.

(d) The long-term strategy must provide for review of the impacts from any new major stationary source or major modifications on visibility in any mandatory Class I Federal area. This review of major stationary sources or major modifications must be in accordance with § 51.307, § 51.166, § 51.160, and any other binding guidance provided by the Agency insofar as these provisions pertain to protection of visibility in any mandatory Class I Federal areas.

(e) The State must consider, at a minimum, the following factors during the development of its long-term strategy:

(1) Emission reductions due to ongoing air pollution control programs,

(2) Additional emission limitations and schedules for compliance,

(3) Measures to mitigate the impacts of construction activities,

(4) Source retirement and replacement schedules,

(5) Smoke management techniques for agricultural and forestry management purposes including such plans as currently exist within the State for these purposes, and

(6) Enforceability of emission limitations and control measures.

(f) The plan must discuss the reasons why the above and other reasonable measures considered in the development of the long-term strategy were or were not adopted as part of the long-term strategy.

(g) The State, in developing the long-term strategy, must take into account the effect of new sources, and the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any affected existing source and equipment therein.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35764, 35774, July 1, 1999]

§ 51.307 New source review.

(a) For purposes of new source review of any new major stationary source or

major modification that would be constructed in an area that is designated attainment or unclassified under section 107(d)(1)(D) or (E) of the CAA, the State plan must, in any review under § 51.166 with respect to visibility protection and analyses, provide for:

(1) Written notification of all affected Federal Land Managers of any proposed new major stationary source or major modification that may affect visibility in any Federal Class I area. Such notification must be made in writing and include a copy of all information relevant to the permit application within 30 days of receipt of and at least 60 days prior to public hearing by the State on the application for permit to construct. Such notification must include an analysis of the anticipated impacts on visibility in any Federal Class I area,

(2) Where the State requires or receives advance notification (e.g. early consultation with the source prior to submission of the application or notification of intent to monitor under § 51.166) of a permit application of a source that may affect visibility the State must notify all affected Federal Land Managers within 30 days of such advance notification, and

(3) Consideration of any analysis performed by the Federal Land Manager, provided within 30 days of the notification and analysis required by paragraph (a)(1) of this section, that such proposed new major stationary source or major modification may have an adverse impact on visibility in any Federal Class I area. Where the State finds that such an analysis does not demonstrate to the satisfaction of the State that an adverse impact will result in the Federal Class I area, the State must, in the notice of public hearing, either explain its decision or give notice as to where the explanation can be obtained.

(b) The plan shall also provide for the review of any new major stationary source or major modification:

(1) That may have an impact on any integral vista of a mandatory Class I Federal area, if it is identified in accordance with § 51.304 by the Federal Land Manager at least 12 months before submission of a complete permit application, except where the Federal Land Manager has provided notice and opportunity for public comment on the integral vista in which case the review must include impacts on any integral vista identified at least 6 months prior to submission of a complete permit application, unless the State determines under § 51.304(d) that the identification was not in accordance with the identification criteria, or

(2) That proposes to locate in an area classified as nonattainment under section 107(d)(1)(A), (B), or (C) of the Clean Air Act that may have an impact on visibility in any mandatory Class I Federal area.

(c) Review of any major stationary source or major modification under paragraph (b) of this section, shall be conducted in accordance with paragraph (a) of this section, and § 51.166(o), (p)(1) through (2), and (q). In conducting such reviews the State must ensure that the source's emissions will be consistent with making reasonable progress toward the national visibility goal referred to in § 51.300(a). The State may take into account the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the useful life of the source.

(d) The State may require monitoring of visibility in any Federal Class I area near the proposed new stationary source or major modification for such purposes and by such means as the State deems necessary and appropriate.

[45 FR 80089, Dec. 2, 1980, as amended at 64 FR 35765, 35774, July 1, 1999]

§ 51.308 Regional haze program requirements.

(a) *What is the purpose of this section?* This section establishes requirements for implementation plans, plan revisions, and periodic progress reviews to address regional haze.

(b) *When are the first implementation plans due under the regional haze program?* Except as provided in § 51.309(c), each State identified in § 51.300(b)(3) must submit, for the entire State, an implementation plan for regional haze meeting the requirements of paragraphs (d) and (e) of this section no later than December 17, 2007.

(c) [Reserved]

(d) *What are the core requirements for the implementation plan for regional haze?* The State must address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State. To meet the core requirements for regional haze for these areas, the State must submit an implementation plan containing the following plan elements and supporting documentation for all required analyses:

(1) *Reasonable progress goals.* For each mandatory Class I Federal area located within the State, the State must establish goals (expressed in deciviews) that provide for reasonable progress towards achieving natural visibility conditions. The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period.

(i) In establishing a reasonable progress goal for any mandatory Class I Federal area within the State, the State must:

(A) Consider the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected sources, and include a demonstration showing how these factors were taken into consideration in selecting the goal.

(B) Analyze and determine the rate of progress needed to attain natural visibility conditions by the year 2064. To calculate this rate of progress, the State must compare baseline visibility conditions to natural visibility conditions in the mandatory Federal Class I area and determine the uniform rate of visibility improvement (measured in deciviews) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. In establishing the reasonable progress goal, the State must consider the uniform rate of improvement in visibility and the emission reduction measures needed to achieve it for the period covered by the implementation plan.

(ii) For the period of the implementation plan, if the State establishes a reasonable progress goal that provides for a slower rate of improvement in visibility than the rate that would be needed to attain natural conditions by 2064, the State must demonstrate, based on the factors in paragraph (d)(1)(i)(A) of this section, that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable. The State must provide to the public for review as part of its implementation plan an assessment of the number of years it would take to attain natural conditions if visibility improvement continues at the rate of progress selected by the State as reasonable.

(iii) In determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions, the Administrator will evaluate the demonstrations developed by the State pursuant to paragraphs (d)(1)(i) and (d)(1)(ii) of this section.

(iv) In developing each reasonable progress goal, the State must consult with those States which may reasonably be anticipated to cause or contribute to visibility impairment in the mandatory Class I Federal area. In any situation in which the State cannot agree with another such State or group of States that a goal provides for reasonable progress, the State must describe in its submittal the actions taken to resolve the disagreement. In reviewing the State's implementation plan submittal, the Administrator will take this information into account in determining whether the State's goal for visibility improvement provides for reasonable progress towards natural visibility conditions.

(v) The reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan to achieve the progress goal adopted by the State.

(vi) The State may not adopt a reasonable progress goal that represents

less visibility improvement than is expected to result from implementation of other requirements of the CAA during the applicable planning period.

(2) *Calculations of baseline and natural visibility conditions.* For each mandatory Class I Federal area located within the State, the State must determine the following visibility conditions (expressed in deciviews):

(i) Baseline visibility conditions for the most impaired and least impaired days. The period for establishing baseline visibility conditions is 2000 to 2004. Baseline visibility conditions must be calculated, using available monitoring data, by establishing the average degree of visibility impairment for the most and least impaired days for each calendar year from 2000 to 2004. The baseline visibility conditions are the average of these annual values. For mandatory Class I Federal areas without onsite monitoring data for 2000–2004, the State must establish baseline values using the most representative available monitoring data for 2000–2004, in consultation with the Administrator or his or her designee;

(ii) For an implementation plan that is submitted by 2003, the period for establishing baseline visibility conditions for the period of the first long-term strategy is the most recent 5-year period for which visibility monitoring data are available for the mandatory Class I Federal areas addressed by the plan. For mandatory Class I Federal areas without onsite monitoring data, the State must establish baseline values using the most representative available monitoring data, in consultation with the Administrator or his or her designee;

(iii) Natural visibility conditions for the most impaired and least impaired days. Natural visibility conditions must be calculated by estimating the degree of visibility impairment existing under natural conditions for the most impaired and least impaired days, based on available monitoring information and appropriate data analysis techniques; and

(iv)(A) For the first implementation plan addressing the requirements of paragraphs (d) and (e) of this section, the number of deciviews by which baseline conditions exceed natural visibility conditions for the most impaired and least impaired days; or

(B) For all future implementation plan revisions, the number of deciviews by which current conditions, as calculated under paragraph (f)(1) of this section, exceed natural visibility conditions for the most impaired and least impaired days.

(3) *Long-term strategy for regional haze.* Each State listed in § 51.300(b)(3) must submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State which may be affected by emissions from the State. The long-term strategy must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas. In establishing its long-term strategy for regional haze, the State must meet the following requirements:

(i) Where the State has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies. The State must consult with any other State having emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area within the State.

(ii) Where other States cause or contribute to impairment in a mandatory Class I Federal area, the State must demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for the area. If the State has participated in a regional planning process, the State must ensure it has included all measures needed to achieve its apportionment of emission reduction obligations agreed upon through that process.

(iii) The State must document the technical basis, including modeling, monitoring and emissions information,

on which the State is relying to determine its apportionment of emission reduction obligations necessary for achieving reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by the regional planning organization and approved by all State participants. The State must identify the baseline emissions inventory on which its strategies are based. The baseline emissions inventory year is presumed to be the most recent year of the consolidate periodic emissions inventory.

(iv) The State must identify all anthropogenic sources of visibility impairment considered by the State in developing its long-term strategy. The State should consider major and minor stationary sources, mobile sources, and area sources.

(v) The State must consider, at a minimum, the following factors in developing its long-term strategy:

(A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;

(B) Measures to mitigate the impacts of construction activities;

(C) Emissions limitations and schedules for compliance to achieve the reasonable progress goal;

(D) Source retirement and replacement schedules;

(E) Smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the State for these purposes;

(F) Enforceability of emissions limitations and control measures; and

(G) The anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the long-term strategy.

(4) *Monitoring strategy and other implementation plan requirements.* The State must submit with the implementation plan a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the State. This monitoring strategy must be coordinated with the monitoring strategy required in § 51.305 for reasonably attributable visibility impairment. Compliance with this requirement may be met through participation in the Interagency Monitoring of Protected Visual Environments network. The implementation plan must also provide for the following:

(i) The establishment of any additional monitoring sites or equipment needed to assess whether reasonable progress goals to address regional haze for all mandatory Class I Federal areas within the State are being achieved.

(ii) Procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas both within and outside the State.

(iii) For a State with no mandatory Class I Federal areas, procedures by which monitoring data and other information are used in determining the contribution of emissions from within the State to regional haze visibility impairment at mandatory Class I Federal areas in other States.

(iv) The implementation plan must provide for the reporting of all visibility monitoring data to the Administrator at least annually for each mandatory Class I Federal area in the State. To the extent possible, the State should report visibility monitoring data electronically.

(v) A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for a baseline year, emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically.

(vi) Other elements, including reporting, recordkeeping, and other measures, necessary to assess and report on visibility.

(e) *Best Available Retrofit Technology (BART) requirements for regional haze visibility impairment.* The State must

submit an implementation plan containing emission limitations representing BART and schedules for compliance with BART for each BART-eligible source that may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area, unless the State demonstrates that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions.

(1) To address the requirements for BART, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A list of all BART-eligible sources within the State.

(ii) A determination of BART for each BART-eligible source in the State that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area. All such sources are subject to BART.

(A) The determination of BART must be based on an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each BART-eligible source that is subject to BART within the State. In this analysis, the State must take into consideration the technology available, the costs of compliance, the energy and nonair quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

(B) The determination of BART for fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the guidelines in appendix Y of this part (Guidelines for BART Determinations Under the Regional Haze Rule).

(C) *Exception.* A State is not required to make a determination of BART for SO_2 or for NO_X if a BART-eligible source has the potential to emit less than 40 tons per year of such pollutant(s), or for PM_{10} if a BART-eligible source has the potential to emit less than 15 tons per year of such pollutant.

(iii) If the State determines in establishing BART that technological or economic limitations on the applicability of measurement methodology to a particular source would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or other operational standard, or combination thereof, to require the application of BART. Such standard, to the degree possible, is to set forth the emission reduction to be achieved by implementation of such design, equipment, work practice or operation, and must provide for compliance by means which achieve equivalent results.

(iv) A requirement that each source subject to BART be required to install and operate BART as expeditiously as practicable, but in no event later than 5 years after approval of the implementation plan revision.

(v) A requirement that each source subject to BART maintain the control equipment required by this subpart and establish procedures to ensure such equipment is properly operated and maintained.

(2) A State may opt to implement or require participation in an emissions trading program or other alternative measure rather than to require sources subject to BART to install, operate, and maintain BART. Such an emissions trading program or other alternative measure must achieve greater reasonable progress than would be achieved through the installation and operation of BART. For all such emission trading programs or other alternative measures, the State must submit an implementation plan containing the following plan elements and include documentation for all required analyses:

(i) A demonstration that the emissions trading program or other alternative measure will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State and covered by the alternative program. This demonstration must be based on the following:

Pages 301-312 Removed

(xvi) Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light-duty vehicles and pre-1980 model light-duty trucks.

[59 FR 16715, Apr. 7, 1994]

APPENDIX Y TO PART 51—GUIDELINES FOR BART DETERMINATIONS UNDER THE REGIONAL HAZE RULE

TABLE OF CONTENTS

I. INTRODUCTION AND OVERVIEW

A. What is the purpose of the guidelines?

The Clean Air Act (CAA), in sections 169A and 169B, contains requirements for the protection of visibility in 156 scenic areas across the United States. To meet the CAA's requirements, we published regulations to protect against a particular type of visibility impairment known as ''regional haze.'' The regional haze rule is found in this part at 40 CFR 51.300 through 51.309. These regulations require, in 40 CFR 51.308(e), that certain types of existing stationary sources of air pollutants install best available retrofit technology (BART). The guidelines are designed to help States and others (1) identify those sources that must comply with the BART requirement, and (2) determine the level of control technology that represents BART for each source.

B. What does the CAA require generally for improving visibility?

Section 169A of the CAA, added to the CAA by the 1977 amendments, requires States to protect and improve visibility in certain scenic areas of national importance. The scenic areas protected by section 169A are ''the mandatory Class I Federal Areas * * * where visibility is an important value.'' In these guidelines, we refer to these as ''Class I areas.'' There are 156 Class I areas, including 47 national parks (under the jurisdiction of the Department of Interior—National Park

Service), 108 wilderness areas (under the jurisdiction of the Department of the Interior—Fish and Wildlife Service or the Department of Agriculture—U.S. Forest Service), and one International Park (under the jurisdiction of the Roosevelt-Campobello International Commission). The Federal Agency with jurisdiction over a particular Class I area is referred to in the CAA as the Federal Land Manager. A complete list of the Class I areas is contained in 40 CFR 81.401 through 81.437, and you can find a map of the Class I areas at the following Internet site: *http://www.epa.gov/ttn/oarpg/t1/fr__notices/classimp.gif*.

The CAA establishes a national goal of eliminating man-made visibility impairment from all Class I areas. As part of the plan for achieving this goal, the visibility protection provisions in the CAA mandate that EPA issue regulations requiring that States adopt measures in their State implementation plans (SIPs), including long-term strategies, to provide for reasonable progress towards this national goal. The CAA also requires States to coordinate with the Federal Land Managers as they develop their strategies for addressing visibility.

C. What is the BART requirement in the CAA?

1. Under section 169A(b)(2)(A) of the CAA, States must require certain existing stationary sources to install BART. The BART provision applies to ''major stationary sources'' from 26 identified source categories which have the potential to emit 250 tons per year or more of any air pollutant. The CAA requires only sources which were put in place during a specific 15-year time interval to be subject to BART. The BART provision applies to sources that existed as of the date of the 1977 CAA amendments (that is, August 7, 1977) but which had not been in operation for more than 15 years (that is, not in operation as of August 7, 1962).

2. The CAA requires BART review when any source meeting the above description ''emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility'' in any Class I area. In identifying a level of control as BART, States are required by section 169A(g) of the CAA to consider:

(a) The costs of compliance,

(b) The energy and non-air quality environmental impacts of compliance,

(c) Any existing pollution control technology in use at the source,

(d) The remaining useful life of the source, and

(e) The degree of visibility improvement which may reasonably be anticipated from the use of BART.

3. The CAA further requires States to make BART emission limitations part of their SIPs. As with any SIP revision, States must provide an opportunity for public comment on the BART determinations, and EPA's action on any SIP revision will be subject to judicial review.

D. What types of visibility problems does EPA address in its regulations?

1. We addressed the problem of visibility in two phases. In 1980, we published regulations addressing what we termed ''reasonably attributable'' visibility impairment. Reasonably attributable visibility impairment is the result of emissions from one or a few sources that are generally located in close proximity to a specific Class I area. The regulations addressing reasonably attributable visibility impairment are published in 40 CFR 51.300 through 51.307.

2. On July 1, 1999, we amended these regulations to address the second, more common, type of visibility impairment known as ''regional haze.'' Regional haze is the result of the collective contribution of many sources over a broad region. The regional haze rule slightly modified 40 CFR 51.300 through 51.307, including the addition of a few definitions in §51.301, and added new §§51.308 and 51.309.

E. What are the BART requirements in EPA's regional haze regulations?

1. In the July 1, 1999 rulemaking, we added a BART requirement for regional haze. We amended the BART requirements in 2005. You will find the BART requirements in 40 CFR 51.308(e). Definitions of terms used in 40 CFR 51.308(e)(1) are found in 40 CFR 51.301.

2. As we discuss in detail in these guidelines, the regional haze rule codifies and clarifies the BART provisions in the CAA. The rule requires that States identify and list ''BART-eligible sources,'' that is, that States identify and list those sources that fall within the 26 source categories, were put in place during the 15-year window of time from 1962 to 1977, and have potential emissions greater than 250 tons per year. Once the State has identified the BART-eligible sources, the next step is to identify those BART-eligible sources that may ''emit any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility.'' Under the rule, a source which fits this description is ''subject to BART.'' For each source subject to BART, 40 CFR 51.308(e)(1)(ii)(A) requires that States identify the level of control representing BART after considering the factors set out in CAA section 169A(g), as follows:

—States must identify the best system of continuous emission control technology for each source subject to BART taking into account the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use at the source, the remaining useful

life of the source, and the degree of visibility improvement that may be expected from available control technology.

3. After a State has identified the level of control representing BART (if any), it must establish an emission limit representing BART and must ensure compliance with that requirement no later than 5 years after EPA approves the SIP. States may establish design, equipment, work practice or other operational standards when limitations on measurement technologies make emission standards infeasible.

F. What is included in the guidelines?

1. The guidelines provide a process for making BART determinations that States can use in implementing the regional haze BART requirements on a source-by-source basis, as provided in 40 CFR 51.308(e)(1). States must follow the guidelines in making BART determinations on a source-by-source basis for 750 megawatt (MW) power plants but are not required to use the process in the guidelines when making BART determinations for other types of sources.

2. The BART analysis process, and the contents of these guidelines, are as follows:

(a) *Identification of all BART-eligible sources.* Section II of these guidelines outlines a step-by-step process for identifying BART-eligible sources.

(b) *Identification of sources subject to BART.* As noted above, sources ''subject to BART'' are those BART-eligible sources which ''emit a pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any Class I area.'' We discuss considerations for identifying sources subject to BART in section III of the guidance.

(c) *The BART determination process.* For each source subject to BART, the next step is to conduct an analysis of emissions control alternatives. This step includes the identification of available, technically feasible retrofit technologies, and for each technology identified, an analysis of the cost of compliance, the energy and non-air quality environmental impacts, and the degree of visibility improvement in affected Class I areas resulting from the use of the control technology. As part of the BART analysis, the State should also take into account the remaining useful life of the source and any existing control technology present at the source. For each source, the State will determine a ''best system of continuous emission reduction'' based upon its evaluation of these factors. Procedures for the BART determination step are described in section IV of these guidelines.

(d) *Emissions limits.* States must establish emission limits, including a deadline for compliance, consistent with the BART determination process for each source subject to BART. Considerations related to these limits are discussed in section V of these guidelines.

G. Who is the target audience for the guidelines?

1. The guidelines are written primarily for the benefit of State, local and Tribal agencies, and describe a process for making the BART determinations and establishing the emission limitations that must be included in their SIPs or Tribal implementation plans (TIPs). Throughout the guidelines, which are written in a question and answer format, we ask questions ''How do I * * *?'' and answer with phrases ''you should * * *, you must * * *'' The ''you'' means a State, local or Tribal agency conducting the analysis. We have used this format to make the guidelines simpler to understand, but we recognize that States have the authority to require source owners to assume part of the analytical burden, and that there will be differences in how the supporting information is collected and documented. We also recognize that data collection, analysis, and rule development may be performed by Regional Planning Organizations, for adoption within each SIP or TIP.

2. The preamble to the 1999 regional haze rule discussed at length the issue of Tribal implementation of the requirements to submit a plan to address visibility. As explained there, requirements related to visibility are among the programs for which Tribes may be determined eligible and receive authorization to implement under the ''Tribal Authority Rule'' (''TAR'') (40 CFR 49.1 through 49.11). Tribes are not subject to the deadlines for submitting visibility implementation plans and may use a modular approach to CAA implementation. We believe there are very few BART-eligible sources located on Tribal lands. Where such sources exist, the affected Tribe may apply for delegation of implementation authority for this rule, following the process set forth in the TAR.

H. Do EPA regulations require the use of these guidelines?

Section 169A(b) requires us to issue guidelines for States to follow in establishing BART emission limitations for fossil-fuel fired power plants having a capacity in excess of 750 megawatts. This document fulfills that requirement, which is codified in 40 CFR 51.308(e)(1)(ii)(B). The guidelines establish an approach to implementing the requirements of the BART provisions of the regional haze rule; we believe that these procedures and the discussion of the requirements of the regional haze rule and the CAA should be useful to the States. For sources other than 750 MW power plants, however, States retain the discretion to adopt approaches that differ from the guidelines.

II. How To Identify BART-Eligible Sources

This section provides guidelines on how to identify BART-eligible sources. A BART-eligible source is an existing stationary source in any of 26 listed categories which meets criteria for startup dates and potential emissions.

A. What are the steps in identifying BART-eligible sources?

Figure 1 shows the steps for identifying whether the source is a ''BART-eligible source:''

Step 1: Identify the emission units in the BART categories,

Step 2: Identify the start-up dates of those emission units, and

Step 3: Compare the potential emissions to the 250 ton/yr cutoff.

Figure 1. How to determine whether a source is BART-eligible:

Step 1: Identify emission units in the BART categories

Does the plant contain emissions units in one or more of the 26 source categories?
➜ No ➜ Stop
➜ Yes ➜ Proceed to Step 2

Step 2: Identify the start-up dates of these emission units

Do any of these emissions units meet the following two tests?
In existence on August 7, 1977
AND
Began operation after August 7, 1962
➜ No ➜ Stop
➜ Yes ➜ Proceed to Step 3

Step 3: Compare the potential emissions from these emission units to the 250 ton/yr cutoff

Identify the ''stationary source'' that includes the emission units you identified in Step 2.

Add the current potential emissions from all the emission units identified in Steps 1 and 2 that are included within the ''stationary source'' boundary.

Are the potential emissions from these units 250 tons per year or more for any visibility-impairing pollutant?
➜ No ➜ Stop
➜ Yes ➜ These emissions units comprise the ''BART-eligible source.''

1. Step 1: Identify Emission Units in the BART Categories

1. The BART requirement only applies to sources in specific categories listed in the CAA. The BART requirement does not apply to sources in other source categories, regardless of their emissions. The listed categories are:

(1) Fossil-fuel fired steam electric plants of more than 250 million British thermal units (BTU) per hour heat input,
(2) Coal cleaning plants (thermal dryers),
(3) Kraft pulp mills,
(4) Portland cement plants,
(5) Primary zinc smelters,
(6) Iron and steel mill plants,
(7) Primary aluminum ore reduction plants,
(8) Primary copper smelters,
(9) Municipal incinerators capable of charging more than 250 tons of refuse per day,
(10) Hydrofluoric, sulfuric, and nitric acid plants,
(11) Petroleum refineries,
(12) Lime plants,
(13) Phosphate rock processing plants,
(14) Coke oven batteries,
(15) Sulfur recovery plants,
(16) Carbon black plants (furnace process),
(17) Primary lead smelters,
(18) Fuel conversion plants,
(19) Sintering plants,
(20) Secondary metal production facilities,
(21) Chemical process plants,
(22) Fossil-fuel boilers of more than 250 million BTUs per hour heat input,
(23) Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels,
(24) Taconite ore processing facilities,
(25) Glass fiber processing plants, and
(26) Charcoal production facilities.

2. Some plants may have emission units from more than one category, and some emitting equipment may fit into more than one category. Examples of this situation are sulfur recovery plants at petroleum refineries, coke oven batteries and sintering plants at steel mills, and chemical process plants at refineries. For Step 1, you identify all of the emissions units at the plant that fit into one or more of the listed categories. You do not identify emission units in other categories.

Example: A mine is collocated with an electric steam generating plant and a coal cleaning plant. You would identify emission units associated with the electric steam generating plant and the coal cleaning plant, because they are listed categories, but not the mine, because coal mining is not a listed category.

3. The category titles are generally clear in describing the types of equipment to be listed. Most of the category titles are very broad descriptions that encompass all emission units associated with a plant site (for example, ''petroleum refining'' and ''kraft pulp mills''). This same list of categories appears in the PSD regulations. States and source owners need not revisit any interpretations of the list made previously for purposes of the PSD program. We provide the following clarifications for a few of the category titles:

(1) ''*Steam electric plants of more than 250 million BTU/hr heat input.*'' Because the category refers to ''plants,'' we interpret this

category title to mean that boiler capacities should be aggregated to determine whether the 250 million BTU/hr threshold is reached. This definition includes only those plants that generate electricity for sale. Plants that cogenerate steam and electricity also fall within the definition of ''steam electric plants''. Similarly, combined cycle turbines are also considered ''steam electric plants'' because such facilities incorporate heat recovery steam generators. Simple cycle turbines, in contrast, are not ''steam electric plants'' because these turbines typically do not generate steam.

Example: A stationary source includes a steam electric plant with three 100 million BTU/hr boilers. Because the aggregate capacity exceeds 250 million BTU/hr for the ''plant,'' these boilers would be identified in Step 2.

(2) ''*Fossil-fuel boilers of more than 250 million BTU/hr heat input.*'' We interpret this category title to cover only those boilers that are individually greater than 250 million BTU/hr. However, an individual boiler smaller than 250 million BTU/hr should be subject to BART if it is an integral part of a process description at a plant that is in a different BART category—for example, a boiler at a Kraft pulp mill that, in addition to providing steam or mechanical power, uses the waste liquor from the process as a fuel. In general, if the process uses any by-product of the boiler and the boiler's function is to serve the process, then the boiler is integral to the process and should be considered to be part of the process description.

Also, you should consider a multi-fuel boiler to be a ''fossil-fuel boiler'' if it burns any amount of fossil fuel. You may take federally and State enforceable operational limits into account in determining whether a multi-fuel boiler's fossil fuel capacity exceeds 250 million Btu/hr.

(3) ''*Petroleum storage and transfer facilities with a capacity exceeding 300,000 barrels.*'' The 300,000 barrel cutoff refers to total facility-wide tank capacity for tanks that were put in place within the 1962–1977 time period, and includes gasoline and other petroleum-derived liquids.

(4) ''*Phosphate rock processing plants.*'' This category descriptor is broad, and includes all types of phosphate rock processing facilities, including elemental phosphorous plants as well as fertilizer production plants.

(5) ''*Charcoal production facilities.*'' We interpret this category to include charcoal briquet manufacturing and activated carbon production.

(6) ''*Chemical process plants.*'' and pharmaceutical manufacturing. Consistent with past policy, we interpret the category ''chemical process plants'' to include those facilities within the 2-digit Standard Industrial Classification (SIC) code 28. Accordingly, we interpret the term ''chemical process plants'' to include pharmaceutical manufacturing facilities.

(7) ''*Secondary metal production.*'' We interpret this category to include nonferrous metal facilities included within SIC code 3341, and secondary ferrous metal facilities that we also consider to be included within the category ''iron and steel mill plants.''

(8) ''*Primary aluminum ore reduction.*'' We interpret this category to include those facilities covered by 40 CFR 60.190, the new source performance standard (NSPS) for primary aluminum ore reduction plants. This definition is also consistent with the definition at 40 CFR 63.840.

2. Step 2: Identify the Start-Up Dates of the Emission Units

1. Emissions units listed under Step 1 are BART-eligible only if they were ''in existence'' on August 7, 1977 but were not ''in operation'' before August 7, 1962.

What does ''in existence on August 7, 1977'' mean?

2. The regional haze rule defines ''in existence'' to mean that:

''the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (1) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (2) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed in a reasonable time.'' 40 CFR 51.301.

As this definition is essentially identical to the definition of ''commence construction'' as that term is used in the PSD regulations, the two terms mean the same thing. *See* 40 CFR 51.165(a)(1)(xvi) and 40 CFR 52.21(b)(9). Under this definition, an emissions unit could be ''in existence'' even if it did not begin operating until several years after 1977.

Example: The owner of a source obtained all necessary permits in early 1977 and entered into binding construction agreements in June 1977. Actual on-site construction began in late 1978, and construction was completed in mid-1979. The source began operating in September 1979. The emissions unit was ''in existence'' as of August 7, 1977.

Major stationary sources which commenced construction AFTER August 7, 1977 (*i.e.*, major stationary sources which were not ''in existence'' on August 7, 1977) were subject to new source review (NSR) under the PSD program. Thus, the August 7, 1977 ''in existence'' test is essentially the same

thing as the identification of emissions units that were grandfathered from the NSR review requirements of the 1977 CAA amendments.

3. Sources are not BART-eligible if the only change at the plant during the relevant time period was the addition of pollution controls. For example, if the only change at a copper smelter during the 1962 through 1977 time period was the addition of acid plants for the reduction of SO_2 emissions, these emission controls would not by themselves trigger a BART review.

What does ''in operation before August 7, 1962'' mean?

An emissions unit that meets the August 7, 1977 ''in existence'' test is not BART-eligible if it was in operation before August 7, 1962. ''In operation'' is defined as ''engaged in activity related to the primary design function of the source.'' This means that a source must have begun actual operations by August 7, 1962 to satisfy this test.

Example: The owner or operator entered into binding agreements in 1960. Actual onsite construction began in 1961, and construction was complete in mid-1962. The source began operating in September 1962. The emissions unit *was not* ''in operation'' before August 7, 1962 and is therefore subject to BART.

What is a ''reconstructed source?'

1. Under a number of CAA programs, an existing source which is completely or substantially rebuilt is treated as a new source. Such ''reconstructed'' sources are treated as new sources as of the time of the reconstruction. Consistent with this overall approach to reconstructions, the definition of BART-eligible facility (reflected in detail in the definition of ''existing stationary facility'') includes consideration of sources that were in operation before August 7, 1962, but were reconstructed during the August 7, 1962 to August 7, 1977 time period.

2. Under the regional haze regulations at 40 CFR 51.301, a reconstruction has taken place if ''the fixed capital cost of the new component exceeds 50 percent of the fixed capital cost of a comparable entirely new source.'' The rule also states that ''[a]ny final decision as to whether reconstruction has occurred must be made in accordance with the provisions of §§ 60.15 (f)(1) through (3) of this title.'' ''[T]he provisions of §§ 60.15(f)(1) through (3)'' refers to the general provisions for New Source Performance Standards (NSPS). Thus, the same policies and procedures for identifying reconstructed ''affected facilities'' under the NSPS program must also be used to identify reconstructed ''stationary sources'' for purposes of the BART requirement.

3. You should identify reconstructions on an emissions unit basis, rather than on a plantwide basis. That is, you need to identify only the reconstructed emission units meeting the 50 percent cost criterion. You should include reconstructed emission units in the list of emission units you identified in Step 1. You need consider as possible reconstructions only those emissions units with the potential to emit more than 250 tons per year of any visibility-impairing pollutant.

4. The ''in operation'' and ''in existence'' tests apply to reconstructed sources. If an emissions unit was reconstructed and began actual operation before August 7, 1962, it is not BART-eligible. Similarly, any emissions unit for which a reconstruction ''commenced'' after August 7, 1977, is not BART-eligible.

How are modifications treated under the BART provision?

1. The NSPS program and the major source NSR program both contain the concept of modifications. In general, the term ''modification'' refers to any physical change or change in the method of operation of an emissions unit that results in an increase in emissions.

2. The BART provision in the regional haze rule contains no explicit treatment of modifications or how modified emissions units, previously subject to the requirement to install best available control technology (BACT), lowest achievable emission rate (LAER) controls, and/or NSPS are treated under the rule. As the BART requirements in the CAA do not appear to provide any exemption for sources which have been modified since 1977, the best interpretation of the CAA visibility provisions is that a subsequent modification does not change a unit's construction date for the purpose of BART applicability. Accordingly, if an emissions unit began operation before 1962, it is not BART-eligible if it was modified between 1962 and 1977, so long as the modification is not also a ''reconstruction.'' On the other hand, an emissions unit which began operation within the 1962–1977 time window, but was modified after August 7, 1977, is BART-eligible. We note, however, that if such a modification was a major modification that resulted in the installation of controls, the State will take this into account during the review process and may find that the level of controls already in place are consistent with BART.

3. Step 3: Compare the Potential Emissions to the 250 Ton/Yr Cutoff

The result of Steps 1 and 2 will be a list of emissions units at a given plant site, including reconstructed emissions units, that are within one or more of the BART categories and that were placed into operation within

the 1962–1977 time window. The third step is to determine whether the total emissions represent a current potential to emit that is greater than 250 tons per year of any single visibility impairing pollutant. Fugitive emissions, to the extent quantifiable, must be counted. In most cases, you will add the potential emissions from all emission units on the list resulting from Steps 1 and 2. In a few cases, you may need to determine whether the plant contains more than one ''stationary source'' as the regional haze rule defines that term, and as we explain further below.

What pollutants should I address?

Visibility-impairing pollutants include the following:

(1) Sulfur dioxide (SO_2),

(2) Nitrogen oxides (NO_X), and

(3) Particulate matter.

You may use PM_{10} as an indicator for particulate matter in this intial step. [Note that we do not recommend use of total suspended particulates (TSP) as in indicator for particulate matter.] As emissions of PM_{10} include the components of $PM_{2.5}$ as a subset, there is no need to have separate 250 ton thresholds for PM_{10} and $PM_{2.5}$; 250 tons of PM_{10} represents at most 250 tons of $PM_{2.5}$, and at most 250 tons of any individual particulate species such as elemental carbon, crustal material, etc.

However, if you determine that a source of particulate matter is BART-eligible, it will be important to distinguish between the fine and coarse particle components of direct particulate emissions in the remainder of the BART analysis, including for the purpose of modeling the source's impact on visibility. This is because although both fine and coarse particulate matter contribute to visibility impairment, the long-range transport of fine particles is of particular concern in the formation of regional haze. Thus, for example, air quality modeling results used in the BART determination will provide a more accurate prediction of a source's impact on visibility if the inputs into the model account for the relative particle size of any directly emitted particulate matter (*i.e.* PM_{10} vs. $PM_{2.5}$).

You should exercise judgment in deciding whether the following pollutants impair visibility in an area:

(4) Volatile organic compounds (VOC), and

(5) Ammonia and ammonia compounds.

You should use your best judgment in deciding whether VOC or ammonia emissions from a source are likely to have an impact on visibility in an area. Certain types of VOC emissions, for example, are more likely to form secondary organic aerosols than others.[1] Similarly, controlling ammonia emissions in some areas may not have a significant impact on visibility. You need not provide a formal showing of an individual decision that a source of VOC or ammonia emissions is not subject to BART review. Because air quality modeling may not be feasible for individual sources of VOC or ammonia, you should also exercise your judgement in assessing the degree of visibility impacts due to emissions of VOC and emissions of ammonia or ammonia compounds. You should fully document the basis for judging that a VOC or ammonia source merits BART review, including your assessment of the source's contribution to visibility impairment.

What does the term ''potential'' emissions mean?

The regional haze rule defines potential to emit as follows:

''Potential to emit'' means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source.

The definition of ''potential to emit'' means that a source which actually emits less than 250 tons per year of a visibility-impairing pollutant is BART-eligible if its emissions would exceed 250 tons per year when operating at its maximum capacity given its physical and operational design (and considering all federally enforceable and State enforceable permit limits.)

Example: A source, while operating at one-fourth of its capacity, emits 75 tons per year of SO_2. If it were operating at 100 percent of its maximum capacity, the source would emit 300 tons per year. Because under the above definition such a source would have ''potential'' emissions that exceed 250 tons per year, the source (if in a listed category and built during the 1962–1977 time window) would be BART-eligible.

How do I identify whether a plant has more than one ''stationary source?''

1. The regional haze rule, in 40 CFR 51.301, defines a stationary source as a ''building, structure, facility or installation which

[1] *Fine particles: Overview of Atmospheric Chemistry, Sources of Emissions, and Ambient Monitoring Data,* Memorandum to Docket OAR 2002–006, April 1, 2005.

emits or may emit any air pollutant.''[2] The rule further defines ''building, structure or facility'' as:

all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities must be considered as part of the same industrial grouping if they belong to the same Major Group (*i.e.*, which have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972 as amended by the 1977 Supplement (U.S. Government Printing Office stock numbers 4101–0066 and 003–005–00176–0, respectively).

2. In applying this definition, it is necessary to determine which facilities are located on ''contiguous or adjacent properties.'' Within this contiguous and adjacent area, it is also necessary to group those emission units that are under ''common control.'' We note that these plant boundary issues and ''common control'' issues are very similar to those already addressed in implementation of the title V operating permits program and in NSR.

3. For emission units within the ''contiguous or adjacent'' boundary and under common control, you must group emission units that are within the same industrial grouping (that is, associated with the same 2-digit SIC code) in order to define the stationary source.[3] For most plants on the BART source category list, there will only be one 2-digit SIC that applies to the entire plant. For example, all emission units associated with kraft pulp mills are within SIC code 26, and chemical process plants will generally include emission units that are all within SIC code 28. The ''2-digit SIC test'' applies in the same way as the test is applied in the major source NSR programs.[4]

4. For purposes of the regional haze rule, you must group emissions from all emission units put in place within the 1962–1977 time period that are within the 2-digit SIC code, even if those emission units are in different categories on the BART category list.

Examples: A chemical plant which started operations within the 1962 to 1977 time period manufactures hydrochloric acid (within the category title ''Hydrochloric, sulfuric, and nitric acid plants'') and various organic chemicals (within the category title ''chemical process plants''). All of the emission units are within SIC code 28 and, therefore, all the emission units are considered in determining BART eligibility of the plant. You sum the emissions over all of these emission units to see whether there are more than 250 tons per year of potential emissions.

A steel mill which started operations within the 1962 to 1977 time period includes a sintering plant, a coke oven battery, and various other emission units. All of the emission units are within SIC code 33. You sum the emissions over all of these emission units to see whether there are more than 250 tons per year of potential emissions.

4. Final Step: Identify the Emissions Units and Pollutants That Constitute the BART-Eligible Source

If the emissions from the list of emissions units at a stationary source exceed a potential to emit of 250 tons per year for any visibility-impairing pollutant, then that collection of emissions units is a BART-eligible source.

Example: A stationary source comprises the following two emissions units, with the following potential emissions:

Emissions unit A
200 tons/yr SO_2
150 tons/yr NO_X
25 tons/yr PM
Emissions unit B
100 tons/yr SO_2
75 tons/yr NO_X
10 tons/yr PM

For this example, potential emissions of SO_2 are 300 tons/yr, which exceeds the 250 tons/yr threshold. Accordingly, the entire ''stationary source'', that is, emissions units A and B, may be subject to a BART review for SO_2, NO_X, and PM, even though the potential emissions of PM and NO_X at each emissions unit are less than 250 tons/yr each.

Example: The total potential emissions, obtained by adding the potential emissions of

[2] NOTE: Most of these terms and definitions are the same for regional haze and the 1980 visibility regulations. For the regional haze rule we use the term ''BART-eligible source'' rather than ''existing stationary facility'' to clarify that only a limited subset of existing stationary sources are subject to BART.

[3] We recognize that we are in a transition period from the use of the SIC system to a new system called the North American Industry Classification System (NAICS). For purposes of identifying BART-eligible sources, you may use either 2-digit SICS or the equivalent in the NAICS system.

[4] NOTE: The concept of support facility used for the NSR program applies here as well. Support facilities, that is facilities that convey, store or otherwise assist in the production of the principal product, must be grouped with primary facilities even when the facilities fall wihin separate SIC codes. For purposes of BART reviews, however, such support facilities (a) must be within one of the 26 listed source categories and (b) must have been in existence as of August 7, 1977, and (c) must not have been in operation as of August 7, 1962.

all emission units in a listed category at a plant site, are as follows:

200 tons/yr SO_2
150 tons/yr NO_X
25 tons/yr PM

Even though total emissions exceed 250 tons/yr, no individual regulated pollutant exceeds 250 tons/yr and this source is not BART-eligible.

Can States establish de minimis levels of emissions for pollutants at BART-eligible sources?

In order to simplify BART determinations, States may choose to identify de minimis levels of pollutants at BART-eligible sources (but are not required to do so). De minimis values should be identified with the purpose of excluding only those emissions so minimal that they are unlikely to contribute to regional haze. Any de minimis values that you adopt must not be higher than the PSD applicability levels: 40 tons/yr for SO_2 and NO_X and 15 tons/yr for PM_{10}. These de minimis levels may only be applied on a plant-wide basis.

III. How To Identify Sources ''Subject to BART''

Once you have compiled your list of BART-eligible sources, you need to determine whether (1) to make BART determinations for all of them or (2) to consider exempting some of them from BART because they may not reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area. If you decide to make BART determinations for all the BART-eligible sources on your list, you should work with your regional planning organization (RPO) to show that, collectively, they cause or contribute to visibility impairment in at least one Class I area. You should then make individual BART determinations by applying the five statutory factors discussed in Section IV below.

On the other hand, you also may choose to perform an initial examination to determine whether a particular BART-eligible source or group of sources causes or contributes to visibility impairment in nearby Class I areas. If your analysis, or information submitted by the source, shows that an individual source or group of sources (or certain pollutants from those sources) is not reasonably anticipated to cause or contribute to any visibility impairment in a Class I area, then you do not need to make BART determinations for that source or group of sources (or for certain pollutants from those sources). In such a case, the source is not ''subject to BART'' and you do not need to apply the five statutory factors to make a BART determination. This section of the Guideline discusses several approaches that you can use to exempt sources from the BART determination process.

A. What Steps Do I Follow To Determine Whether a Source or Group of Sources Cause or Contribute to Visibility Impairment for Purposes of BART?

1. How Do I Establish a Threshold?

One of the first steps in determining whether sources cause or contribute to visibility impairment for purposes of BART is to establish a threshold (measured in deciviews) against which to measure the visibility impact of one or more sources. A single source that is responsible for a 1.0 deciview change or more should be considered to ''cause'' visibility impairment; a source that causes less than a 1.0 deciview change may still contribute to visibility impairment and thus be subject to BART.

Because of varying circumstances affecting different Class I areas, the appropriate threshold for determining whether a source ''contributes to any visibility impairment'' for the purposes of BART may reasonably differ across States. As a general matter, any threshold that you use for determining whether a source ''contributes'' to visibility impairment should not be higher than 0.5 deciviews.

In setting a threshold for ''contribution,'' you should consider the number of emissions sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts.[5] In general, a larger number of sources causing impacts in a Class I area may warrant a lower contribution threshold. States remain free to use a threshold lower than 0.5 deciviews if they conclude that the location of a large number of BART-eligible sources within the State and in proximity to a Class I area justify this approach.[6]

2. What Pollutants Do I Need To Consider?

You must look at SO_2, NO_X, and direct particulate matter (PM) emissions in determining whether sources cause or contribute to visibility impairment, including both PM_{10} and $PM_{2.5}$. Consistent with the approach for identifying your BART-eligible sources, you do not need to consider less

[5] We expect that regional planning organizations will have modeling information that identifies sources affecting visibility in individual class I areas.

[6] Note that the contribution threshold should be used to determine whether an individual source is reasonably anticipated to contribute to visibility impairment. You should not aggregate the visibility effects of multiple sources and compare their collective effects against your contribution threshold because this would inappropriately create a ''contribute to contribution'' test.

than de minimis emissions of these pollutants from a source.

As explained in section II, you must use your best judgement to determine whether VOC or ammonia emissions are likely to have an impact on visibility in an area. In addition, although as explained in Section II, you may use PM_{10} an indicator for particulate matter in determining whether a source is BART-eligible, in determining whether a source contributes to visibility impairment, you should distinguish between the fine and coarse particle components of direct particulate emissions. Although both fine and coarse particulate matter contribute to visibility impairment, the long-range transport of fine particles is of particular concern in the formation of regional haze. Air quality modeling results used in the BART determination will provide a more accurate prediction of a source's impact on visibility if the inputs into the model account for the relative particle size of any directly emitted particulate matter (*i.e.*, PM_{10} vs. $PM_{2.5}$).

3. What Kind of Modeling Should I Use To Determine Which Sources and Pollutants Need Not Be Subject to BART?

This section presents several options for determining that certain sources need not be subject to BART. These options rely on different modeling and/or emissions analysis approaches. They are provided for your guidance. You may also use other reasonable approaches for analyzing the visibility impacts of an individual source or group of sources.

Option 1: Individual Source Attribution Approach (Dispersion Modeling)

You can use dispersion modeling to determine that an individual source cannot reasonably be anticipated to cause or contribute to visibility impairment in a Class I area and thus is not subject to BART. Under this option, you can analyze an individual source's impact on visibility as a result of its emissions of SO_2, NO_X and direct PM emissions. Dispersion modeling cannot currently be used to estimate the predicted impacts on visibility from an individual source's emissions of VOC or ammonia. You may use a more qualitative assessment to determine on a case-by-case basis which sources of VOC or ammonia emissions may be likely to impair visibility and should therefore be subject to BART review, as explained in section II.A.3. above.

You can use CALPUFF[7] or other appropriate model to predict the visibility impacts from a single source at a Class I area. CALPUFF is the best regulatory modeling application currently available for predicting a single source's contribution to visibility impairment and is currently the only EPA-approved model for use in estimating single source pollutant concentrations resulting from the long range transport of primary pollutants.[8] It can also be used for some other purposes, such as the visibility assessments addressed in today's rule, to account for the chemical transformation of SO_2 and NO_X.

There are several steps for making an individual source attribution using a dispersion model:

1. *Develop a modeling protocol.* Some critical items to include in the protocol are the meteorological and terrain data that will be used, as well as the source-specific information (stack height, temperature, exit velocity, elevation, and emission rates of applicable pollutants) and receptor data from appropriate Class I areas. We recommend following EPA's *Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts*[9] for parameter settings and meteorological data inputs. You may use other settings from those in IWAQM, but you should identify these settings and explain your selection of these settings.

One important element of the protocol is in establishing the receptors that will be used in the model. The receptors that you use should be located in the nearest Class I area with sufficient density to identify the likely visibility effects of the source. For other Class I areas in relatively close proximity to a BART-eligible source, you may model a few strategic receptors to determine whether effects at those areas may be greater than at the nearest Class I area. For example, you might chose to locate receptors at these areas at the closest point to the source, at the highest and lowest elevation in the Class I area, at the IMPROVE monitor, and at the approximate expected plume release height. If the highest modeled effects are observed at the nearest Class I area, you may choose not to analyze the other Class I areas any further as additional analyses might be unwarranted.

[7] The model code and its documentation are available at no cost for download from *http://www.epa.gov/scram001/tt22.htm#calpuff*.

[8] The Guideline on Air Quality Models, 40 CFR part 51, appendix W, addresses the regulatory application of air quality models for assessing criteria pollutants under the CAA, and describes further the procedures for using the CALPUFF model, as well as for obtaining approval for the use of other, nonguideline models.

[9] *Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts*, U.S. Environmental Protection Agency, EPA–454/R–98–019, December 1998.

You should bear in mind that some receptors within the relevant Class I area may be less than 50 km from the source while other receptors within that same Class I area may be greater than 50 km from the same source. As indicated by the Guideline on Air Quality Models, 40 CFR part 51, appendix W, this situation may call for the use of two different modeling approaches for the same Class I area and source, depending upon the State's chosen method for modeling sources less than 50 km. In situations where you are assessing visibility impacts for source-receptor distances less than 50 km, you should use expert modeling judgment in determining visibility impacts, giving consideration to both CALPUFF and other appropriate methods.

In developing your modeling protocol, you may want to consult with EPA and your regional planning organization (RPO). Up-front consultation will ensure that key technical issues are addressed before you conduct your modeling.

2. *With the accepted protocol and compare the predicted visibility impacts with your threshold for ''contribution.''* You should calculate daily visibility values for each receptor as the change in deciviews compared against natural visibility conditions. You can use EPA's ''Guidance for Estimating Natural Visibility Conditions Under the Regional Haze Rule,'' EPA–454/B–03–005 (September 2003) in making this calculation. To determine whether a source may reasonably be anticipated to cause or contribute to visibility impairment at Class I area, you then compare the impacts predicted by the model against the threshold that you have selected.

The emissions estimates used in the models are intended to reflect steady-state operating conditions during periods of high capacity utilization. We do not generally recommend that emissions reflecting periods of start-up, shutdown, and malfunction be used, as such emission rates could produce higher than normal effects than would be typical of most facilities. We recommend that States use the 24 hour average actual emission rate from the highest emitting day of the meteorological period modeled, unless this rate reflects periods start-up, shutdown, or malfunction. In addition, the monthly average relative humidity is used, rather than the daily average humidity—an approach that effectively lowers the peak values in daily model averages.

For these reasons, if you use the modeling approach we recommend, you should compare your ''contribution'' threshold against the 98th percentile of values. If the 98th percentile value from your modeling is less than your contribution threshold, then you may conclude that the source does not contribute to visibility impairment and is not subject to BART.

Option 2: Use of Model Plants To Exempt Individual Sources With Common Characteristics

Under this option, analyses of model plants could be used to exempt certain BART-eligible sources that share specific characteristics. It may be most useful to use this type of analysis to identify the types of small sources that do not cause or contribute to visibility impairment for purposes of BART, and thus should not be subject to a BART review. Different Class I areas may have different characteristics, however, so you should use care to ensure that the criteria you develop are appropriate for the applicable cases.

In carrying out this approach, you could use modeling analyses of representative plants to reflect groupings of specific sources with important common characteristics. Based on these analyses, you may find that certain types of sources are clearly anticipated to cause or contribute to visibility impairment. You could then choose to categorically require those types of sources to undergo a BART determination. Conversely, you may find based on representative plant analyses that certain types of sources are not reasonably anticipated to cause or contribute to visibility impairment. To do this, you may conduct your own modeling to establish emission levels and distances from Class I areas on which you can rely to exempt sources with those characteristics. For example, based on your modeling you might choose to exempt all NO_X-only sources that emit less than a certain amount per year and are located a certain distance from a Class I area. You could then choose to categorically exempt such sources from the BART determination process.

Our analyses of visibility impacts from model plants provide a useful example of the type of analyses that can be used to exempt categories of sources from BART.[10] In our analyses, we developed model plants (EGUs and non-EGUs), with representative plume and stack characteristics, for use in considering the visibility impact from emission sources of different sizes and compositions at distances of 50, 100 and 200 kilometers from two hypothetical Class I areas (one in the East and one in the West). As the plume and stack characteristics of these model plants were developed considering the broad range of sources within the EGU and non-EGU categories, they do not necessarily represent any specific plant. However, the results of these analyses are instructive in the development of an exemption process for any Class I area.

[10] CALPUFF Analysis in Support of the June 2005 Changes to the Regional Haze Rule, U.S. Environmental Protection Agency, June 15, 2005, Docket No. OAR–2002–0076.

In preparing our analyses, we have made a number of assumptions and exercised certain modeling choices; some of these have a tendency to lend conservatism to the results, overstating the likely effects, while others may understate the likely effects. On balance, when all of these factors are considered, we believe that our examples reflect realistic treatments of the situations being modeled. Based on our analyses, we believe that a State that has established 0.5 deciviews as a contribution threshold could reasonably exempt from the BART review process sources that emit less than 500 tons per year of NO_X or SO_2 (or combined NO_X and SO_2), as long as these sources are located more than 50 kilometers from any Class I area; and sources that emit less than 1000 tons per year of NO_X or SO_2 (or combined NO_X and SO_2) that are located more than 100 kilometers from any Class I area. You do, however, have the option of showing other thresholds might also be appropriate given your specific circumstances.

Option 3: Cumulative Modeling To Show That No Sources in a State Are Subject to BART

You may also submit to EPA a demonstration based on an analysis of overall visibility impacts that emissions from BART-eligible sources in your State, considered together, are not reasonably anticipated to cause or contribute to any visibility impairment in a Class I area, and thus no source should be subject to BART. You may do this on a pollutant by pollutant basis or for all visibility-impairing pollutants to determine if emissions from these sources contribute to visibility impairment.

For example, emissions of SO_2 from your BART-eligible sources may clearly cause or contribute to visibility impairment while direct emissions of $PM_{2.5}$ from these sources may not contribute to impairment. If you can make such a demonstration, then you may reasonably conclude that none of your BART-eligible sources are subject to BART for a particular pollutant or pollutants. As noted above, your demonstration should take into account the interactions among pollutants and their resulting impacts on visibility before making any pollutant-specific determinations.

Analyses may be conducted using several alternative modeling approaches. First, you may use the CALPUFF or other appropriate model as described in Option 1 to evaluate the impacts of individual sources on downwind Class I areas, aggregating those impacts to determine the collective contribution of all BART-eligible sources to visibility impairment. You may also use a photochemical grid model. As a general matter, the larger the number of sources being modeled, the more appropriate it may be to use a photochemical grid model. However, because such models are significantly less sensitive than dispersion models to the contributions of one or a few sources, as well as to the interactions among sources that are widely distributed geographically, if you wish to use a grid model, you should consult with the appropriate EPA Regional Office to develop an appropriate modeling protocol.

IV. The BART Determination: Analysis of BART Options

This section describes the process for the analysis of control options for sources subject to BART.

A. What factors must I address in the BART review?

The visibility regulations define BART as follows:

Best Available Retrofit Technology (BART) means an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by . . . [a BART-eligible source]. The emission limitation must be established, on a case-by-case basis, taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

The BART analysis identifies the best system of continuous emission reduction taking into account:

(1) The available retrofit control options,

(2) Any pollution control equipment in use at the source (which affects the availability of options and their impacts),

(3) The costs of compliance with control options,

(4) The remaining useful life of the facility,

(5) The energy and non-air quality environmental impacts of control options

(6) The visibility impacts analysis.

B. What is the scope of the BART review?

Once you determine that a source is subject to BART for a particular pollutant, then for each affected emission unit, you must establish BART for that pollutant. The BART determination must address air pollution control measures for each emissions unit or pollutant emitting activity subject to review.

Example: Plantwide emissions from emission units within the listed categories that began operation within the ''time window''

for BART[11] are 300 tons/yr of NO_X, 200 tons/yr of SO_2, and 150 tons/yr of primary particulate. Emissions unit A emits 200 tons/yr of NO_X, 100 tons/yr of SO_2, and 100 tons/yr of primary particulate. Other emission units, units B through H, which began operating in 1966, contribute lesser amounts of each pollutant. For this example, a BART review is required for NO_X, SO_2, and primary particulate, and control options must be analyzed for units B through H as well as unit A.

C. How does a BART review relate to Maximum Achievable Control Technology (MACT) Standards under CAA section 112, or to other emission limitations required under the CAA?

For VOC and PM sources subject to MACT standards, States may streamline the analysis by including a discussion of the MACT controls and whether any major new technologies have been developed subsequent to the MACT standards. We believe that there are many VOC and PM sources that are well controlled because they are regulated by the MACT standards, which EPA developed under CAA section 112. For a few MACT standards, this may also be true for SO_2. Any source subject to MACT standards must meet a level that is as stringent as the best-controlled 12 percent of sources in the industry. Examples of these hazardous air pollutant sources which effectively control VOC and PM emissions include (among others) secondary lead facilities, organic chemical plants subject to the hazardous organic NESHAP (HON), pharmaceutical production facilities, and equipment leaks and wastewater operations at petroleum refineries. We believe that, in many cases, it will be unlikely that States will identify emission controls more stringent than the MACT standards without identifying control options that would cost many thousands of dollars per ton. Unless there are new technologies subsequent to the MACT standards which would lead to cost-effective increases in the level of control, you may rely on the MACT standards for purposes of BART.

We believe that the same rationale also holds true for emissions standards developed for municipal waste incinerators under CAA section 111(d), and for many NSR/PSD determinations and NSR/PSD settlement agreements. However, we do not believe that technology determinations from the 1970s or early 1980s, including new source performance standards (NSPS), should be considered to represent best control for existing sources, as best control levels for recent plant retrofits are more stringent than these older levels.

[11] That is, emission units that were in existence on August 7, 1977 and which began actual operation on or after August 7, 1962.

Where you are relying on these standards to represent a BART level of control, you should provide the public with a discussion of whether any new technologies have subsequently become available.

D. What Are the Five Basic Steps of a Case-by-Case BART Analysis?

The five steps are:
STEP 1—Identify All[12] Available Retrofit Control Technologies,
STEP 2—Eliminate Technically Infeasible Options,
STEP 3—Evaluate Control Effectiveness of Remaining Control Technologies,
STEP 4—Evaluate Impacts and Document the Results, and
STEP 5—Evaluate Visibility Impacts.

1. STEP 1: How do I identify all available retrofit emission control techniques?

1. Available retrofit control options are those air pollution control technologies with a practical potential for application to the emissions unit and the regulated pollutant under evaluation. Air pollution control technologies can include a wide variety of available methods, systems, and techniques for control of the affected pollutant. Technologies required as BACT or LAER are available for BART purposes and must be included as control alternatives. The control alternatives can include not only existing controls for the source category in question but also take into account technology transfer of controls that have been applied to similar source categories and gas streams. Technologies which have not yet been applied to (or permitted for) full scale operations need not be considered as available; we do not expect the source owner to purchase or construct a process or control device that has not already been demonstrated in practice.

2. Where a NSPS exists for a source category (which is the case for most of the categories affected by BART), you should include a level of control equivalent to the NSPS as one of the control options.[13] The

[12] In identifying ''all'' options, you must identify the most stringent option and a reasonable set of options for analysis that reflects a comprehensive list of available technologies. It is not necessary to list all permutations of available control levels that exist for a given technology—the list is complete if it includes the maximum level of control each technology is capable of achieving.

[13] In EPA's 1980 BART guidelines for reasonably attributable visibility impairment, we concluded that NSPS standards generally, at that time, represented the best level sources could install as BART. In the 20

Continued

NSPS standards are codified in 40 CFR part 60. We note that there are situations where NSPS standards do not require the most stringent level of available control for all sources within a category. For example, post-combustion NO_X controls (the most stringent controls for stationary gas turbines) are not required under subpart GG of the NSPS for Stationary Gas Turbines. However, such controls must still be considered available technologies for the BART selection process.

3. Potentially applicable retrofit control alternatives can be categorized in three ways.

• Pollution prevention: use of inherently lower-emitting processes/practices, including the use of control techniques (e.g., low-NO_X burners) and work practices that prevent emissions and result in lower ''production-specific'' emissions (note that it is not our intent to direct States to switch fuel forms, e.g., from coal to gas),

• Use of (and where already in place, improvement in the performance of) add-on controls, such as scrubbers, fabric filters, thermal oxidizers and other devices that control and reduce emissions after they are produced, and

• Combinations of inherently lower-emitting processes and add-on controls.

4. In the course of the BART review, one or more of the available control options may be eliminated from consideration because they are demonstrated to be technically infeasible or to have unacceptable energy, cost, or non-air quality environmental impacts on a case-by-case (or site-specific) basis. However, at the outset, you should initially identify all control options with potential application to the emissions unit under review.

5. We do not consider BART as a requirement to redesign the source when considering available control alternatives. For example, where the source subject to BART is a coal-fired electric generator, we do not require the BART analysis to consider building a natural gas-fired electric turbine although the turbine may be inherently less polluting on a per unit basis.

6. For emission units subject to a BART review, there will often be control measures or devices already in place. For such emission units, it is important to include control options that involve improvements to existing controls and not to limit the control options only to those measures that involve a complete replacement of control devices.

Example: For a power plant with an existing wet scrubber, the current control efficiency is 66 percent. Part of the reason for the relatively low control efficiency is that 22 percent of the gas stream bypasses the scrubber. A BART review identifies options for improving the performance of the wet scrubber by redesigning the internal components of the scrubber and by eliminating or reducing the percentage of the gas stream that bypasses the scrubber. Four control options are identified: (1) 78 percent control based upon improved scrubber performance while maintaining the 22 percent bypass, (2) 83 percent control based upon improved scrubber performance while reducing the bypass to 15 percent, (3) 93 percent control based upon improving the scrubber performance while eliminating the bypass entirely, (this option results in a ''wet stack'' operation in which the gas leaving the stack is saturated with water) and (4) 93 percent as in option 3, with the addition of an indirect reheat system to reheat the stack gas above the saturation temperature. You must consider each of these four options in a BART analysis for this source.

7. You are expected to identify potentially applicable retrofit control technologies that represent the full range of demonstrated alternatives. Examples of general information sources to consider include:

• The EPA's Clean Air Technology Center, which includes the RACT/BACT/LAER Clearinghouse (RBLC);

• State and Local Best Available Control Technology Guidelines—many agencies have online information—for example South Coast Air Quality Management District, Bay Area Air Quality Management District, and Texas Natural Resources Conservation Commission;

• Control technology vendors;

• Federal/State/Local NSR permits and associated inspection/performance test reports;

• Environmental consultants;

• Technical journals, reports and newsletters, air pollution control seminars; and

• The EPA's NSR bulletin board—*http://www.epa.gov/ttn/nsr;*

• Department of Energy's Clean Coal Program—technical reports;

• The NO_X Control Technology ''Cost Tool''—Clean Air Markets Division Web page—*http://www.epa.gov/airmarkets/arp/nox/controltech.html;*

• Performance of selective catalytic reduction on coal-fired steam generating units—

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year period since this guidance was developed, there have been advances in SO_2 control technologies as well as technologies for the control of other pollutants, confirmed by a number of recent retrofits at Western power plants. Accordingly, EPA no longer concludes that the NSPS level of controls automatically represents ''the best these sources can install.'' Analysis of the BART factors could result in the selection of a NSPS level of control, but you should reach this conclusion only after considering the full range of control options.

final report. OAR/ARD, June 1997 (also available at *http://www.epa.gov/airmarkets/arp/nox/controltech.html*);

• Cost estimates for selected applications of NO_X control technologies on stationary combustion boilers. OAR/ARD June 1997. (Docket for NO_X SIP Call, A–96–56, item II–A–03);

• Investigation of performance and cost of NO_X controls as applied to group 2 boilers. OAR/ARD, August 1996. (Docket for Phase II NO_X rule, A–95–28, item IV–A–4);

• Controlling SO_2 Emissions: A Review of Technologies. EPA–600/R–00–093, USEPA/ORD/NRMRL, October 2000; and

• The OAQPS Control Cost Manual.

You are expected to compile appropriate information from these information sources.

8. There may be situations where a specific set of units within a fenceline constitutes the logical set to which controls would apply and that set of units may or may not all be BART-eligible. (For example, some units in that set may not have been constructed between 1962 and 1977.)

9. If you find that a BART source has controls already in place which are the most stringent controls available (note that this means that all possible improvements to any control devices have been made), then it is not necessary to comprehensively complete each following step of the BART analysis in this section. As long these most stringent controls available are made federally enforceable for the purpose of implementing BART for that source, you may skip the remaining analyses in this section, including the visibility analysis in step 5. Likewise, if a source commits to a BART determination that consists of the most stringent controls available, then there is no need to complete the remaining analyses in this section.

2. STEP 2: How do I determine whether the options identified in Step 1 are technically feasible?

In Step 2, you evaluate the technical feasibility of the control options you identified in Step 1. You should document a demonstration of technical infeasibility and should explain, based on physical, chemical, or engineering principles, why technical difficulties would preclude the successful use of the control option on the emissions unit under review. You may then eliminate such technically infeasible control options from further consideration in the BART analysis.

In general, what do we mean by technical feasibility?

Control technologies are technically feasible if either (1) they have been installed and operated successfully for the type of source under review under similar conditions, or (2) the technology could be applied to the source under review. Two key concepts are important in determining whether a technology could be applied: ''availability'' and ''applicability.'' As explained in more detail below, a technology is considered ''available'' if the source owner may obtain it through commercial channels, or it is otherwise available within the common sense meaning of the term. An available technology is ''applicable'' if it can reasonably be installed and operated on the source type under consideration. A technology that is available and applicable is technically feasible.

What do we mean by ''available'' technology?

1. The typical stages for bringing a control technology concept to reality as a commercial product are:

• Concept stage;
• Research and patenting;
• Bench scale or laboratory testing;
• Pilot scale testing;
• Licensing and commercial demonstration; and
• Commercial sales.

2. A control technique is considered available, within the context presented above, if it has reached the stage of licensing and commercial availability. Similarly, we do not expect a source owner to conduct extended trials to learn how to apply a technology on a totally new and dissimilar source type. Consequently, you would not consider technologies in the pilot scale testing stages of development as ''available'' for purposes of BART review.

3. Commercial availability by itself, however, is not necessarily a sufficient basis for concluding a technology to be applicable and therefore technically feasible. Technical feasibility, as determined in Step 2, also means a control option may reasonably be deployed on or ''applicable'' to the source type under consideration.

Because a new technology may become available at various points in time during the BART analysis process, we believe that guidelines are needed on when a technology must be considered. For example, a technology may become available during the public comment period on the State's rule development process. Likewise, it is possible that new technologies may become available after the close of the State's public comment period and before submittal of the SIP to EPA, or during EPA's review process on the SIP submittal. In order to provide certainty in the process, all technologies should be considered if available before the close of the State's public comment period. You need not consider technologies that become available after this date. As part of your analysis, you should consider any technologies brought to your attention in public comments. If you disagree with public comments asserting that the technology is available, you should

provide an explanation for the public record as to the basis for your conclusion.

What do we mean by ''applicable'' technology?

You need to exercise technical judgment in determining whether a control alternative is applicable to the source type under consideration. In general, a commercially available control option will be presumed applicable if it has been used on the same or a similar source type. Absent a showing of this type, you evaluate technical feasibility by examining the physical and chemical characteristics of the pollutant-bearing gas stream, and comparing them to the gas stream characteristics of the source types to which the technology had been applied previously. Deployment of the control technology on a new or existing source with similar gas stream characteristics is generally a sufficient basis for concluding the technology is technically feasible barring a demonstration to the contrary as described below.

What type of demonstration is required if I conclude that an option is not technically feasible?

1. Where you conclude that a control option identified in Step 1 is technically infeasible, you should demonstrate that the option is either commercially unavailable, or that specific circumstances preclude its application to a particular emission unit. Generally, such a demonstration involves an evaluation of the characteristics of the pollutant-bearing gas stream and the capabilities of the technology. Alternatively, a demonstration of technical infeasibility may involve a showing that there are unresolvable technical difficulties with applying the control to the source (e.g., size of the unit, location of the proposed site, operating problems related to specific circumstances of the source, space constraints, reliability, and adverse side effects on the rest of the facility). Where the resolution of technical difficulties is merely a matter of increased cost, you should consider the technology to be technically feasible. The cost of a control alternative is considered later in the process.

2. The determination of technical feasibility is sometimes influenced by recent air quality permits. In some cases, an air quality permit may require a certain level of control, but the level of control in a permit is not expected to be achieved in practice (e.g., a source has received a permit but the project was canceled, or every operating source at that permitted level has been physically unable to achieve compliance with the limit). Where this is the case, you should provide supporting documentation showing why such limits are not technically feasible, and, therefore, why the level of control (but not necessarily the technology) may be eliminated from further consideration. However, if there is a permit requiring the application of a certain technology or emission limit to be achieved for such technology, this usually is sufficient justification for you to assume the technical feasibility of that technology or emission limit.

3. Physical modifications needed to resolve technical obstacles do not, in and of themselves, provide a justification for eliminating the control technique on the basis of technical infeasibility. However, you may consider the cost of such modifications in estimating costs. This, in turn, may form the basis for eliminating a control technology (see later discussion).

4. Vendor guarantees may provide an indication of commercial availability and the technical feasibility of a control technique and could contribute to a determination of technical feasibility or technical infeasibility, depending on circumstances. However, we do not consider a vendor guarantee alone to be sufficient justification that a control option will work. Conversely, lack of a vendor guarantee by itself does not present sufficient justification that a control option or an emissions limit is technically infeasible. Generally, you should make decisions about technical feasibility based on chemical, and engineering analyses (as discussed above), in conjunction with information about vendor guarantees.

5. A possible outcome of the BART procedures discussed in these guidelines is the evaluation of multiple control technology alternatives which result in essentially equivalent emissions. It is not our intent to encourage evaluation of unnecessarily large numbers of control alternatives for every emissions unit. Consequently, you should use judgment in deciding on those alternatives for which you will conduct the detailed impacts analysis (Step 4 below). For example, if two or more control techniques result in control levels that are essentially identical, considering the uncertainties of emissions factors and other parameters pertinent to estimating performance, you may evaluate only the less costly of these options. You should narrow the scope of the BART analysis in this way only if there is a negligible difference in emissions and energy and non-air quality environmental impacts between control alternatives.

3. STEP 3: How do I evaluate technically feasible alternatives?

Step 3 involves evaluating the control effectiveness of all the technically feasible control alternatives identified in Step 2 for the pollutant and emissions unit under review.

Two key issues in this process include:

(1) Making sure that you express the degree of control using a metric that ensures

Pages 625-635 Removed

Title 40—PROTECTION OF ENVIRONMENT

Chapter I—Environmental Protection Agency

SUBCHAPTER C—AIR PROGRAMS

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

On August 17, 1971 (36 F.R. 15704) pursuant to section 111 of the Clean Air Act as amended, the Administrator proposed standards of performance for steam generators, portland cement plants, incinerators, nitric acid plants and sulfuric acid plants. The proposed standards, applicable to sources the construction or modification of which was initiated after August 17, 1971, included emission limits for one or more of four pollutants (particulate matter, sulfur dioxide, nitrogen oxides, and sulfuric acid mist) for each source category. The proposal included requirements for performance testing, stack gas monitoring, record keeping and reporting, and procedures by which EPA will provide preconstruction review and determine the applicability of the standards to specific sources.

Interested parties were afforded an opportunity to participate in the rule making by submitting comments. A total of more than 200 interested parties, including Federal, State, and local agencies, citizens groups, and commercial and industrial organizations submitted comments. Following a review of the proposed regulations and consideration of the comments, the regulations, including the appendix, have been revised and are being promulgated today. The principal revisions are described below:

1. Particulate matter performance testing procedures have been revised to eliminate the requirement for impingers in the sampling train. Compliance will be based only on material collected in the dry filter and the probe preceding the filter. Emission limits have been adjusted as appropriate to reflect the change in test methods. The adjusted standards require the same degree of particulate control as the originally proposed standards.

2. Provisions have been added whereby alternative test methods can be used to determine compliance. Any person who proposes the use of an alternative method will be obliged to provide evidence that the alternative method is equivalent to the reference method.

3. The definition of modification, as it pertains to increases in production rate and changes of fuels, has been clarified. Increases in production rates up to design capacity will not be considered a modification nor will fuel switches if the equipment was originally designed to accommodate such fuels. These provisions will eliminate inequities where equipment had been put into partial operation prior to the proposal of the standards.

4. The definition of a new source was clarified to include construction which is completed within an organization as well as the more common situations where the facility is designed and constructed by a contractor.

5. The provisions regarding requests for EPA plan review and determination of construction or modification have been modified to emphasize that the submittal of such requests and attendant information is purely voluntary. Submittal of such a request will not bind the operator to supply further information; however, lack of sufficient information may prevent the Administrator from rendering an opinion. Further provisions have been added to the effect that information submitted voluntarily for such plan review or determination of applicability will be considered confidential, if the owner or operator requests such confidentiality.

6. Requirements for notifying the Administrator prior to commencing construction have been deleted. As proposed, the provision would have required notification prior to the signing of a contract for construction of a new source. Owners and operators still will be required to notify the Administrator 30 days prior to initial operation and to confirm the action within 15 days after startup.

7. Revisions were incoporated to permit compliance testing to be deferred up to 60 days after achieving the maximum production rate but no longer than 180 days after initial startup. The proposed regulation could have required testing within 60 days after startup but defined startup as the beginning of routine operation. Owners or operators will be required to notify the Administrator at least 10 days prior to compliance testing so that an EPA observer can be on hand. Procedures have been modified so that the equipment will have to be operated at maximum expected production rate, rather than rated capacity, during compliance tests.

8. The criteria for evaluating performance testing results have been simplified to eliminate the requirement that all values be within 35 percent of the average. Compliance will be based on the average of three repetitions conducted in the specified manner.

9. Provisions were added to require owners or operators of affected facilities to maintain records of compliance tests, monitoring equipment, pertinent analyses, feed rates, production rates, etc. for 2 years and to make such information available on request to the Administrator. Owners or operators will be required to summarize the recorded data daily and to convert recorded data into the applicable units of the standard.

10. Modifications were made to the visible emission standards for steam generators, cement plants, nitric acid plants, and sulfuric acid plants. The Ringelmann standards have been deleted; all limits will be based on opacity. In every case, the equivalent opacity will be at least as stringent as the proposed Ringelmann number. In addition, requirements have been altered for three of the source categories so that allowable emissions will be less than 10 percent opacity rather than 5 percent or less opacity. There were many comments that observers could not accurately evaluate emissions of 5 percent opacity. In addition, drafting errors in the proposed visible emission limits for cement kilns and steam generators were corrected. Steam generators will be limited to visible emissions not greater than 20 percent opacity and cement kilns to not greater than 10 percent opacity.

11. Specifications for monitoring devices were clarified, and directives for calibration were included. The instruments are to be calibrated at least once a day, or more often if specified by the manufacturer. Additional guidance on the selection and use of such instruments will be provided at a later date.

12. The requirement for sulfur dioxide monitoring at steam generators was deleted for those sources which will achieve the standard by burning low-sulfur fuel, provided that fuel analysis is conducted and recorded daily. American Society for Testing and Materials sampling techniques are specified for coal and fuel oil.

13. Provisions were added to the steam generator standards to cover those instances where mixed fuels are burned. Allowable emissions will be determined by prorating the heat input of each fuel, however, in the case of sulfur dioxide, the provisions allow operators the option of burning low-sulfur fuels (probably natural gas) as a means of compliance.

14. Steam generators fired with lignite have been exempted from the nitrogen oxides limit. The revision was made in view of the lack of information on some types of lignite burning. When more information is developed, nitrogen oxides standards may be extended to lignite fired steam generators.

15. A provision was added to make it explicit that the sulfuric acid plant standards will not apply to scavenger acid plants. As stated in the background document, APTD 0711, which was issued at the time the proposed standards were published, the standards were not meant to apply to such operations, e.g., where sulfuric acid plants are used primarily to control sulfur dioxide or other sulfur compounds which would otherwise be vented into the atmosphere.

16. The regulation has been revised to provide that all materials submitted pursuant to these regulations will be directed to EPA's Office of General Enforcement.

17. Several other technical changes have also been made. States and interested parties are urged to make a careful reading of these regulations.

As required by section 111 of the Act, the standards of performance promulgated herein "reflect the degree of emission reduction which (taking into account the cost of achieving such reduction) the Administrator determines has been adequately demonstrated". The standards of performance are based on stationary source testing conducted by the Environmental Protection Agency and/or contractors and on data derived from various other sources, including the available technical literature. In the comments on the proposed standards, many questions were raised as to costs and

demonstrated capability of control systems to meet the standards. These comments have been evaluated and investigated, and it is the Administrator's judgment that emission control systems capable of meeting the standards have been adequately demonstrated and that the standards promulgated herein are achievable at reasonable costs.

The regulations establishing standards of performance for steam generators, incinerators, cement plants, nitric acid plants, and sulfuric acid plants are hereby promulgated effective on publication and apply to sources, the construction or modification of which was commenced after August 17, 1971.

Dated: December 16, 1971.

WILLIAM D. RUCKELSHAUS,
Administrator,
Environmental Protection Agency.

A new Part 60 is added to Chapter I, Title 40, Code of Federal Regulations, as follows:

Subpart A—General Provisions

Subpart D—Standards of Performance for Fossil Fuel-Fired Steam Generators

Subpart E—Standards of Performance for Incinerators

Subpart F—Standards of Performance for Portland Cement Plants

Subpart G—Standards of Performance for Nitric Acid Plants

Subpart H—Standards of Performance for Sulfuric Acid Plants

APPENDIX—TEST METHODS

AUTHORITY: The provisions of this Part 60 issued under sections 111, 114, Clean Air Act; Public Law 91-604, 84 Stat. 1713.

Subpart A—General Provisions

§ 60.1 Applicability.

The provisions of this part apply to the owner or operator of any stationary source, which contains an affected facility the construction or modification of which is commenced after the date of publication in this part of any proposed standard applicable to such facility.

§ 60.2 Definitions.

As used in this part, all terms not defined herein shall have the meaning given them in the Act:

(a) "Act" means the Clean Air Act (42 U.S.C. 1857 et seq., as amended by Public Law 91-604, 84 Stat. 1676).

(b) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(c) "Standard" means a standard of performance proposed or promulgated under this part.

(d) "Stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant.

(e) "Affected facility" means, with reference to a stationary source, any apparatus to which a standard is applicable.

(f) "Owner or operator" means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

(g) "Construction" means fabrication, erection, or installation of an affected facility.

(h) "Modification" means any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant (to which a standard applies) emitted by such facility or which results in the emission of any air pollutant (to which a standard applies) not previously emitted, except that:

(1) Routine maintenance, repair, and replacement shall not be considered physical changes, and

(2) The following shall not be considered a change in the method of operation:

(i) An increase in the production rate, if such increase does not exceed the operating design capacity of the affected facility;

(ii) An increase in hours of operation;

(iii) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to such facility, as provided by § 60.1, the affected facility is designed to accommodate such alternative use.

(i) "Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(j) "Opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

(k) "Nitrogen oxides" means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

(l) "Standard of normal conditions" means 70° Fahrenheit (21.1° centigrade) and 29.92 in. Hg (760 mm. Hg).

(m) "Proportional sampling" means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

(n) "Isokinetic sampling" means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

(o) "Startup" means the setting in operation of an affected facility for any purpose.

§ 60.3 Abbreviations.

The abbreviations used in this part have the following meanings in both capital and lower case:

B.t.u.—British thermal unit.
cal.—calorie(s).
c.f.m.—cubic feet per minute.
CO_2—carbon dioxide.
g.—gram(s).
gr.—grain(s).
mg.—milligram(s).
mm.—millimeter(s).
l.—liter(s).
nm.—nanometer(s), -10^{-9} meter.
μg.—microgram(s), 10^{-6} gram.
Hg.—mercury.
in.—inch(es).
K—1,000.
lb.—pound(s).
ml.—milliliter(s).
No.—number.
%—percent.
NO—nitric oxide.
NO_2—nitrogen dioxide.
NO_x—nitrogen oxides.
N.M.^{3}—normal cubic meter.
s.c.f.—standard cubic feet.
SO_2—sulfur dioxide.
H_2SO_4—sulfuric acid.
SO_3—sulfur trioxide.

ft.³—cubic feet.
ft.²—square feet.
min.—minute(s).
hr.—hour(s).

§ 60.4 Address.

All applications, requests, submissions, and reports under this part shall be submitted in triplicate and addressed to the Environmental Protection Agency, Office of General Enforcement, Waterside Mall SW., Washington, DC 20460.

§ 60.5 Determination of construction or modification.

When requested to do so by an owner or operator, the Administrator will make a determination of whether actions taken or intended to be taken by such owner or operator constitute construction or modification or the commencement thereof within the meaning of this part.

§ 60.6 Review of plans.

(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

(b) (1) A separate request shall be submitted for each affected facility.

(2) Each request shall (i) identify the location of such affected facility, and (ii) be accompanied by technical information describing the proposed nature, size, design, and method of operation of such facility, including information on any equipment to be used for measurement or control of emissions.

(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

§ 60.7 Notification and record keeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:

(1) A notification of the anticipated date of initial startup of an affected facility not more than 60 days or less than 30 days prior to such date.

(2) A notification of the actual date of initial startup of an affected facility within 15 days after such date.

(b) Any owner or operator subject to the provisions of this part shall maintain for a period of 2 years a record of the occurrence and duration of any startup, shutdown, or malfunction in operation of any affected facility.

§ 60.8 Performance tests.

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(b) Performance tests shall be conducted and results reported in accordance with the test method set forth in this part or equivalent methods approved by the Administrator; or where the Administrator determines that emissions from the affected facility are not susceptible of being measured by such methods, the Administrator shall prescribe alternative test procedures for determining compliance with the requirements of this part.

(c) The owner or operator shall permit the Administrator to conduct performance tests at any reasonable time, shall cause the affected facility to be operated for purposes of such tests under such conditions as the Administrator shall specify based on representative performance of the affected facility, and shall make available to the Administrator such records as may be necessary to determine such performance.

(d) The owner or operator of an affected facility shall provide the Administrator 10 days prior notice of the performance test to afford the Administrator the opportunity to have an observer present.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform (s).

(4) Utilities for sampling and testing equipment.

(f) Each performance test shall consist of three repetitions of the applicable test method. For the purpose of determining compliance with an applicable standard of performance, the average of results of all repetitions shall apply.

§ 60.9 Availability of information.

(a) Emission data provided to, or otherwise obtained by, the Administrator in accordance with the provisions of this part shall be available to the public.

(b) Except as provided in paragraph (a) of this section, any records, reports, or information provided to, or otherwise obtained by, the Administrator in accordance with the provisions of this part shall be available to the public, except that (1) upon a showing satisfactory to the Administrator by any person that such records, reports, or information, or particular part thereof (other than emission data), if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such records, reports, or information, or particular part thereof, confidential in accordance with the purposes of section 1905 of title 18 of the United States Code, except that such records, reports, or information, or particular part thereof, may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out the provisions of the Act or when relevant in any proceeding under the Act; and (2) information received by the Administrator solely for the purposes of §§ 60.5 and 60.6 shall not be disclosed if it is identified by the owner or operator as being a trade secret or commercial or financial information which such owner or operator considers confidential.

§ 60.10 State authority.

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.

(b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

Subpart D—Standards of Performance for Fossil-Fuel Fired Steam Generators

§ 60.40 Applicability and designation of affected facility.

The provisions of this subpart are applicable to each fossil fuel-fired steam generating unit of more than 250 million B.t.u. per hour heat input, which is the affected facility.

§ 60.41 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, and in Subpart A of this part.

(a) "Fossil fuel-fired steam generating unit" means a furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

(b) "Fossil fuel" means natural gas, petroleum, coal and any form of solid, liquid, or gaseous fuel derived from such materials.

(c) "Particulate matter" means any finely divided liquid or solid material, other than uncombined water, as measured by Method 5.

§ 60.42 Standard for particulate matter.

On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of particulate matter which is:

(a) In excess of 0.10 lb. per million B.t.u. heat input (0.18 g. per million cal.) maximum 2-hour average.

(b) Greater than 20 percent opacity, except that 40 percent opacity shall be permissible for not more than 2 minutes in any hour.

(c) Where the presence of uncombined water is the only reason for failure to meet the requirements of paragraph (b) of this section such failure shall not be a violation of this section.

§ 60.43 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of sulfur dioxide in excess of:

(a) 0.80 lb. per million B.t.u. heat input (1.4 g. per million cal.), maximum 2-hour average, when liquid fossil fuel is burned.

(b) 1.2 lbs. per million B.t.u. heat input (2.2 g. per million cal.), maximum 2-hour average, when solid fossil fuel is burned.

(c) Where different fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration. Compliance shall be determined using the following formula:

$$\frac{y(0.80)+z(1.2)}{x+y+z}$$

where:

x is the percent of total heat input derived from gaseous fossil fuel and,
y is the percent of total heat input derived from liquid fossil fuel and,
z is the percent of total heat input derived from solid fossil fuel.

§ 60.44 Standard for nitrogen oxides.

On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of nitrogen oxides in excess of:

(a) 0.20 lb. per million B.t.u. heat input (0.36 g. per million cal.), maximum 2-hour average, expressed as NO_2, when gaseous fossil fuel is burned.

(b) 0.30 lb. per million B.t.u. heat input (0.54 g. per million cal.), maximum 2-hour average, expressed as NO_2, when liquid fossil fuel is burned.

(c) 0.70 lb. per million B.t.u. heat input (1.26 g. per million cal.), maximum 2-hour average, expressed as NO_2 when solid fossil fuel (except lignite) is burned.

(d) When different fossil fuels are burned simultaneously in any combination the applicable standard shall be determined by proration. Compliance shall be determined by using the following formula:

$$\frac{x(0.20)+y(0.30)+z(0.70)}{x+y+z}$$

where:

x is the percent of total heat input derived from gaseous fossil fuel and,
y is the percent of total heat input derived from liquid fossil fuel and,
z is the percent of total heat input derived from solid fossil fuel.

§ 60.45 Emission and fuel monitoring.

(a) There shall be installed, calibrated, maintained, and operated, in any fossil fuel-fired steam generating unit subject to the provisions of this part, emission monitoring instruments as follows:

(1) A photoelectric or other type smoke detector and recorder, except where gaseous fuel is the only fuel burned.

(2) An instrument for continuously monitoring and recording sulfur dioxide emissions, except where gaseous fuel is the only fuel burned, or where compliance is achieved through low sulfur fuels and representative sulfur analysis of fuels are conducted daily in accordance with paragraph (c) or (d) of this section.

(3) An instrument for continuously monitoring and recording emissions of nitrogen oxides.

(b) Instruments and sampling systems installed and used pursuant to this section shall be capable of monitoring emission levels within ±20 percent with a confidence level of 95 percent and shall be calibrated in accordance with the method(s) prescribed by the manufacturer(s) of such instruments; instruments shall be subjected to manufacturers recommended zero adjustment and calibration procedures at least once per 24-hour operating period unless the manufacturer(s) specifies or recommends calibration at shorter intervals, in which case such specifications or recommendations shall be followed. The applicable method specified in the appendix of this part shall be the reference method.

(c) The sulfur content of solid fuels, as burned, shall be determined in accordance with the following methods of the American Society for Testing and Materials.

(1) Mechanical sampling by Method D 2234065.

(2) Sample preparation by Method D 2013-65.

(3) Sample analysis by Method D 271-68.

(d) The sulfur content of liquid fuels, as burned, shall be determined in accordance with the American Society for Testing and Materials Methods D 1551-68, or D 129-64, or D 1552-64.

(e) The rate of fuel burned for each fuel shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. Where the steam generating unit is used to generate electricity, the average electrical output and the minimum and maximum hourly generation rate shall be measured and recorded daily.

(f) The owner or operator of any fossil fuel-fired steam generating unit subject to the provisions of this part shall maintain a file of all measurements required by this part. Appropriate measurements shall be reduced to the units of the applicable standard daily, and summarized monthly. The record of any such measurement(s) and summary shall be retained for at least 2 years following the date of such measurements and summaries.

§ 60.46 Test methods and procedures.

(a) The provisions of this section are applicable to performance tests for determining emissions of particulate matter, sulfur dioxide, and nitrogen oxides from fossil fuel-fired steam generating units.

(b) All performance tests shall be conducted while the affected facility is operating at or above the maximum steam production rate at which such facility will be operated and while fuels or combinations of fuels representative of normal operation are being burned and under such other relevant conditions as the Administrator shall specify based on representative performance of the affected facility.

(c) Test methods set forth in the appendix to this part or equivalent methods approved by the Administrator shall be used as follows:

(1) For each repetition, the average concentration of particulate matter shall be determined by using Method 5. Traversing during sampling by Method 5 shall be according to Method 1. The minimum sampling time shall be 2 hours, and minimum sampling volume shall be 60 ft.³ corrected to standard conditions on a dry basis.

(2) For each repetition, the SO_2 concentration shall be determined by using Method 6. The sampling site shall be the same as for determining volumetric flow rate. The sampling point in the duct shall be at the centroid of the cross section if the cross sectional area is less than 50 ft.² or at a point no closer to the walls than 3 feet if the cross sectional area is 50 ft.² or more. The sample shall be extracted at a rate proportional to the gas velocity at the sampling point. The minimum sampling time shall be 20 min. and minimum sampling volume shall be 0.75 ft.³ corrected to standard conditions. Two samples shall constitute one repetition and shall be taken at 1-hour intervals.

(3) For each repetition the NO_x concentration shall be determined by using Method 7. The sampling site and point shall be the same as for SO_2. The sampling time shall be 2 hours, and four samples shall be taken at 30-minute intervals.

(4) The volumetric flow rate of the total effluent shall be determined by using Method 2 and traversing according to Method 1. Gas analysis shall be performed by Method 3, and moisture content shall be determined by the condenser technique of Method 5.

(d) Heat input, expressed in B.t.u. per hour, shall be determined during each 2-hour testing period by suitable fuel flow meters and shall be confirmed by a material balance over the steam generation system.

(e) For each repetition, emissions, expressed in lb./10⁶ B.t.u. shall be determined by dividing the emission rate in lb./hr. by the heat input. The emission rate shall be determined by the equation, lb./hr. $Q_s \cdot c$ where, Q_s = volumetric flow rate of the total effluent in ft.³ hr. at standard conditions, dry basis, as determined in accordance with paragraph (c)(4) of this section.

(f) For particulate matter, c = particulate concentration in lb./ft.³ at determined in accordance with paragraph (c)(1) of this section, corrected to standard conditions, dry basis.

(2) For SO_2, $c=SO_2$ concentration in lb./ft.³, as determined in accordance with paragraph (c)(2) of this section, corrected to standard conditions, dry basis.

(3) For NO_x, $c=NO_x$ concentration in lb./ft.³, as determined in accordance with paragraph (c)(3) of this section, corrected to standard conditions, dry basis.

Subpart E—Standards of Performance for Incinerators

§ 60.50 Applicability and designation of affected facility.

The provisions of this subpart are applicable to each incinerator of more than 50 tons per day charging rate, which is the affected facility.

§ 60.51 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

(a) "Incinerator" means any furnace used in the process of burning solid waste for the primary purpose of reducing the volume of the waste by removing combustible matter.

(b) "Solid waste" means refuse, more than 50 percent of which is municipal type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustibles, and noncombustible materials such as glass and rock.

(c) "Day" means 24 hours.

(d) "Particulate matter" means any finely divided liquid or solid material, other than uncombined water, as measured by Method 5.

§ 60.52 Standard for particulate matter.

On and after the date on which the performance test required to be conducted by § 60.8 is initiated, no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of particulate matter which is in excess of 0.08 gr./s.c.f. (0.18 g./NM^3) corrected to 12 percent CO_2, maximum 2-hour average.

§ 60.53 Monitoring of operations.

The owner or operator of any incinerator subject to the provisions of this part shall maintain a file of daily burning rates and hours of operation and any particulate emission measurements. The burning rates and hours of operation shall be summarized monthly. The record(s) and summary shall be retained for at least 2 years following the date of such records and summaries.

§ 60.54 Test methods and procedures.

(a) The provisions of this section are applicable to performance tests for determining emissions of particulate matter from incinerators.

(b) All performance tests shall be conducted while the affected facility is operating at or above the maximum refuse charging rate at which such facility will be operated and the solid waste burned shall be representative of normal operation and under such other relevant conditions as the Administrator shall specify based on representative performance of the affected facility.

(c) Test methods set forth in the appendix to this part or equivalent methods approved by the Administrator shall be used as follows:

(1) For each repetition, the average concentration of particulate matter shall be determined by using Method 5. Traversing during sampling by Method 5 shall be according to Method 1. The minimum sampling time shall be 2 hours and the minimum sampling volume shall be 60 ft.³ corrected to standard conditions on a dry basis.

(2) Gas analysis shall be performed using the integrated sample technique of Method 3, and moisture content shall be determined by the condenser technique of Method 5. If a wet scrubber is used, the gas analysis sample shall reflect flue gas conditions after the scrubber, allowing for the effect of carbon dioxide absorption.

(d) For each repetition particulate matter emissions, expressed in gr./s.c.f., shall be determined in accordance with paragraph (c)(1) of this section corrected to 12 percent CO_2, dry basis.

Subpart F—Standards of Performance for Portland Cement Plants

§ 60.60 Applicability and designation of affected facility.

The provisions of the subpart are applicable to the following affected facilities in portland cement plants: kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.

§ 60.61 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

(a) "Portland cement plant" means any facility manufacturing portland cement by either the wet or dry process.

(b) "Particulate matter" means any finely divided liquid or solid material, other than uncombined water, as measured by Method 5.

§ 60.62 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of particulate matter from the kiln which is:

(1) In excess of 0.30 lb. per ton of feed to the kiln (0.15 Kg. per metric ton), maximum 2-hour average.

(2) Greater than 10 percent opacity, except that where the presence of uncombined water is the only reason for failure to meet the requirements for this subparagraph, such failure shall not be a violation of this section.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of particulate matter from the clinker cooler which is:

(1) In excess of 0.10 lb. per ton of feed to the kiln (0.050 Kg. per metric ton) maximum 3-hour average.

(2) 10 percent opacity or greater.

(c) On and after the date on which the performance test required to be conducted by § 60.8 is initiated no owner or operator subject to the provisions of this part shall discharge or cause the discharge into the atmosphere of particulate matter from any affected facility other than the kiln and clinker cooler which is 10 percent opacity or greater.

§ 60.63 Monitoring of operations.

The owner or operator of any portland cement plant subject to the provisions of this part shall maintain a file of daily production rates and kiln feed rates and any particulate emission measurements. The production and feed rates shall be summarized monthly. The record(s) and summary shall be retained for at least 2 years following the date of such records and summaries.

§ 60.64 Test methods and procedures.

(a) The provisions of this section are applicable to performance tests for determining emissions of particulate matter from portland cement plant kilns and clinker coolers.

(b) All performance tests shall be conducted while the affected facility is operating at or above the maximum production rate at which such facility will be operated and under such other relevant conditions as the Administrator shall specify based on representative performance of the affected facility.

(c) Test methods set forth in the appendix to this part or equivalent methods approved by the Administrator shall be used as follows:

(1) For each repetition, the average concentration of particulate matter shall be determined by using Method 5. Traversing during sampling by Method 5 shall be according to Method 1. The minimum sampling time shall be 2 hours and the minimum sampling volume shall be 60 ft.³ corrected to standard conditions on a dry basis.

(2) The volumetric flow rate of the total effluent shall be determined by using Method 2 and traversing according to Method 1. Gas analysis shall be performed using the integrated sample technique of Method 3, and moisture content shall be determined by the condenser technique of Method 5.

(d) Total kiln feed (except fuels), expressed in tons per hour on a dry basis, shall be determined during each 2-hour testing period by suitable flow meters and shall be confirmed by a material balance over the production system.

(e) For each repetition, particulate matter emissions, expressed in lb./ton of kiln feed shall be determined by dividing the emission rate in lb./hr. by the kiln feed. The emission rate shall be determined by the equation, lb./hr. $Q_s \times c_s$,

Pages 24881-24895 Removed

thereunder, shall document that (1) any loan which might be obtained under provisions of such Act would not be available on reasonable terms as defined in § 39.105–5 of this Part; or (ii) The Farmers Home Administration has, pursuant to its authority under such Act, denied loan assistance to the public body for the non-Federal share of total project costs.

(e) The application shall include a detailed schedule of estimated revenues for the treatment works system and their disposition over the life of the obligations which the Authority is requested to purchase. The schedule shall show that sufficient amounts will be available to meet each payment of principal and interest on such obligations and to provide for reasonable reserves for future payments. The Regional Administrator shall not certify that such obligations are eligible for purchase by the Authority unless he determines it is reasonable to anticipate that adequate revenues will be available.

(f) The application shall be accompanied by a legal opinion establishing that the applicant has legal authority to obligate itself for payment of the non-Federal share, to construct the project(s) and to issue the obligations, and that the obligations will be legal and binding obligations.

(g) The Regional Administrator may require the submission of additional financial or other information which he considers necessary.

§ 39.115 Limitation on assistance.

The amount of any grant, loan, or other assistance available from another Federal agency, a State, or other third parties for the non-Federal share of a project will be deducted from the amount which would be otherwise financed by the Authority, unless such assistance is not available on reasonable terms.

§ 39.118 Repayment period.

The repayment period for any obligation financed by the Authority shall be for a reasonable term not to exceed the useful life of the project or thirty years, whichever is less.

§ 39.120 Certification.

(a) Upon being satisfied that the requirement of the Environmental Financing Act and of these regulations have been fulfilled, the Regional Administrator may certify to the Authority, through the Administrator, that the public body is unable to obtain on reasonable terms sufficient credit to finance the non-Federal share of the project and that the obligations proposed to be issued to the Authority are otherwise eligible for purchase by it, provided that no such certification may be made in the case of a project for which the permanent financing occurred prior to October 18, 1972.

(b) The public body receiving certification must agree to:

(1) Maintain the facilities in good repair and operating condition during the period in which obligations financed by the Authority are outstanding.

(2) Maintain insurance and bonding adequate to protect the guarantor.

(3) Maintain and preserve until 3 years after the obligations financed by the Authority have been retired financial reports (including annual operating budgets) necessary to reflect receipt of revenues for repayment.

(4) Adopt a financial system designed to provide revenues adequate to assure repayment of principal and interest of obligations financed by the Authority. Such financial systems must be comparable to the capital cost recovery system relating to the Federal share of project costs in accordance with section 204(b) of the Act.

(5) Notify the Regional Administrator or his successor whenever it appears that projected annual revenues will be insufficient to meet payments for principal, interest, and operating costs.

(6) Revise its rate or rate structure with the approval of the Regional Administrator or his successor whenever such revisions are required to assure that annual revenues will be sufficient to meet projected operating costs and required payments of principal and interest.

(7) The enforcement of the foregoing conditions by the Regional Administrator or his successor in a court of competent jurisdiction.

(c) If the public body receiving certification will not be the operating agency, then such public body must produce evidence satisfactory to the Regional Administrator that the operating agency will meet the applicable requirements of paragraph (b) of this section.

(d) Obligations guaranteed by the Administrator may be subordinate to obligations issued prior to October 18, 1972, pursuant to instruments requiring such subordination. The Regional Administrator may consider a request for guarantee of obligations which will have equal standing with obligations which are issued to finance costs directly associated with the project but which are not eligible for guarantee by the Administrator.

§ 39.125 Guarantee.

The Administrator hereby unconditionally guarantees pursuant to section 12(e)(2) of the Act to the Authority and its successors or assigns full and timely payment of interest and principal in accordance with the terms of any obligation purchased by or issued to the Authority in reliance on any certification granted by a Regional Administrator pursuant to § 39.120.

[FR Doc.74–13632 Filed 6–13–74;8:45 am]

SUBCHAPTER C—AIR PROGRAMS

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Miscellaneous Amendments

On December 23, 1971 (36 FR 24876), pursuant to section 111 of the Clean Air Act, as amended, the Administrator promulgated subpart A, General Provisions, and subparts D, E, F, G, and H which set forth standards of performance for new and modified facilities within five categories of stationary sources: (1) Fossil fuel-fired steam generators, (2) incinerators, (3) portland cement plants, (4) nitric acid plants, and (5) sulfuric acid plants. Corrections to these standards were published on July 26, 1972 (37 FR 14877), and on May 23, 1973 (38 FR 13562). On October 15, 1973 (38 FR 28564), the Administrator amended subpart A, General Provisions, by adding provisions to regulate compliance with standards of performance during startup, shutdown, and malfunction. On March 8, 1974 (39 FR 9308), the Administrator promulgated Subparts I, J, K, L, M, N, and O which set forth standards of performance for new and modified facilities within seven categories of stationary sources: (1) Asphalt concrete plants, (2) petroleum refineries, (3) storage vessels for petroleum liquids, (4) secondary lead smelters, (5) brass and bronze ingot production plants, (6) iron and steel plants, and (7) sewage treatment plants. In the same publication, the Administrator also promulgated amendments to subpart A, General Provisions. Corrections to these standards were published on April 17, 1974 (39 FR 13776).

Subpart D, E, F, G, and H are revised below to be consistent with the October 15, 1973, and March 8, 1974, amendments to subpart A. At the same time, changes in wording are made to clarify the regulations. These amendments do not modify the control requirements of the standards of performance. Also, to be consistent with the Administrator's policy of converting to the metric system, the standards of performance and other numerical entries, which were originally expressed in English units, are converted to metric units. Some of the numerical entries are rounded after conversion to metric units. It should be noted that the numerical entries in the reference methods in the appendix will be changed to metric units at a later date.

The new source performance standards promulgated March 8, 1974, applicable to petroleum storage vessels, included within their coverage storage vessels in the 40,000 to 65,000 gallon size range. The preamble to that publication discussed the fact that vessels of that size had not been included in the proposed rule, and set forth the reasons for their subsequent inclusion. However, through oversight, nothing was set forth in the regulations or preamble prescribing the effective date of the standards as to vessels within the 40,000 to 65,000 gallon range.

Section 111(a)(2) of the Act specifies that only a source for which construction is commenced after the date on which a pertinent new source standard is prescribed is subject to the standard unless the source was covered by the standard as proposed. In this case, the date of prescription or promulgation of the standard is clearly the operative date since there was no proposal date. Accordingly, § 60.1 is amended below to conform to the language of section 111(a)(2), and all persons are advised hereby that the provisions of Part 60

promulgated March 8, 1974, apply to storage vessels for petroleum liquids in the 40,000 to 65,000 gallon size range for which construction is commenced on or after that date.

On March 8, 1974, § 60.7(d) was added to require owners and operators to retain all recorded information, including monitoring and performance testing measurements, required by the regulations for at least 2 years after the date on which the information was recorded. This requirement is therefore deleted from Subparts D, E, F, G, and H specific to each new source in this group to avoid repetition. On March 8, 1974, the definitions of "particulate matter" and "run" were added to § 60.2. Therefore the definition of "particular matter" is removed from Subparts D, E, F, G, and H, and the term "repetition," used in these subparts in sections pertinent to performance tests, is changed to "run."

On October 15, 1973, § 60.8(c) was revised to require that performance tests be conducted under conditions specified by the Administrator based on representative performance of the affected facility. For that reason, the sections in Subparts D, E, F, G, and H specifying operating conditions to be met during performance tests are deleted.

Sections 60.40, 60.41(b) and 60.42(a)(1) are revised to clarify that the performance standards for steam generators do not apply when an existing unit changes to accommodate the use of combustible materials other than fossil fuel as defined in § 60.41(b).

Sections 60.41(a) and 60.51(a) are revised to eliminate the requirement that a unit have a "primary" purpose. This change is intended to prevent circumvention of a standard by simply defining the primary purpose of a unit as something other than steam production or reducing the volume of solid waste.

In § 60.46, A.S.T.M. Methods D3015-66 (Reapproved 1972), D240-64 (Reapproved 1973), and D1826-64 (Reapproved 1970) are specified for measuring heating value. Prior to this issue no method was specified for determining heating value.

The phrase "maximum 2-hour average" in the standards of performance prescribed in §§ 60.42, 60.52, 60.62, 60.72, and 60.82 is deleted. Concurrently, in §§ 60.46, 60.54, 60.64, and 60.85 the sampling time requirements for particulate matter and acid mist are changed from a minimum of 2 hours to a minimum of 60 minutes per run. The phrase "maximum 2-hour average" is not consonant with § 60.8(f) which requires that compliance be determined by averaging the results of three runs. Results from performance tests conducted at power plants and other sources have not shown any decrease in the accuracy or precision of 1-hour samples as compared with 2-hour samples, and therefore the extra hour required to sample for 2 hours is not justified. The time interval between samples for sulfur dioxide and nitrogen oxides was originally established so that one run would be completed at approximately the same time as the particulate matter run. To maintain this relationship, the sampling intervals specified in §§ 60.46 and 60.74 are shortened to be consistent with the 60-minute-per-run requirement.

The requirement prescribed in §§ 60.46, 60.64, 60.74 and 60.85 for using "suitable flow meters" for measuring fuel and product flow rates is deleted. Such meters may be used if available, but other suitable methods of determining the flow rate of fuel or product during the test period may also be used.

A procedure specifying how to allow for carbon dioxide absorption in a wet scrubber and a formula for correcting particulate matter emissions to a basis of 12 percent CO_2 are added to § 60.54.

In anticipation of adding other appendices, the present appendix to Part 60 is being retitled "Appendix A—Reference Methods." The definitions of "reference method" and "particulate matter" are amended to be consistent with this change.

In the regulations in Subpart K setting forth the performance standard for storage vessels for petroleum liquids, the definition of "crude petroleum" was to have been changed to be consistent with the definition of "petroleum" in Subpart J. This change was inadvertently not made in 39 FR 9308 and thus §§ 60.110 and 60.111 are amended by replacing the term "crude petroleum" with "petroleum."

The remaining structural and wording changes are made for purposes of clarification.

On June 29, 1973, the U.S. Court of Appeals for the District of Columbia remanded to EPA for further consideration the new source performance standards for portland cement plants. Portland Cement Association v. Ruckelshaus, 486 F.2d 375. On September 10, 1973, the same Court remanded to EPA for further consideration the new source performance standards for sulfuric acid plants and coal-fired steam electric generators. Essex Chemical Co. v. Ruckelshaus, 486 F.2d 427. The Agency has not completed its consideration with respect to the remanded standards. These amendments are not intended to constitute a response to the remands. At the time the Agency completes its consideration with respect to the remanded standards, it will publicly announce its decision and at that time if any revisions of the standards are deemed necessary or desirable, will make such revisions.

These actions are effective on June 14, 1974. The Agency finds good cause exists for not publishing these actions as a notice of proposed rulemaking and for making them effective immediately upon publication for the following reasons:

1. These actions are intended for clarification and for maintaining consistency throughout the regulations. They are not intended to alter the substantive content of the regulations.

2. Immediate effectiveness of the actions enables the sources involved to proceed with certainty in conducting their affairs, and persons wishing to seek judicial review of the actions may do so without delay.

(42 U.S.C. 1857 (c) (6) and (9))

Dated: June 10, 1974.

JOHN QUARLES,
Acting Administrator.

Part 60 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

1. Section 60.1 is revised to read as follows:

§ 60.1 Applicability.

The provisions of this part apply to the owner or operator of any stationary source which contains an affected facility the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to such facility.

2. Section 60.2 is amended by revising paragraphs (s) and (v) as follows:

§ 60.2 Definitions.

* * * * *

(s) "Reference method" means any method of sampling and analyzing for an air pollutant as described in Appendix A to this part.

* * * * *

(v) "Particulate matter" means any finely divided solid or liquid material, other than uncombined water, as measured by Method 5 of Appendix A to this part or an equivalent or alternative method.

* * * * *

3. Section 60.40 is revised to read as follows:

§ 60.40 Applicability and designation of affected facility.

The provisions of this subpart are applicable to each fossil fuel-fired steam generating unit of more than 63 million kcal per hour heat input (250 million Btu per hour), which is the affected facility. Any change to an existing fossil fuel-fired steam generating unit to accommodate the use of combustible materials, other than fossil fuels as defined in this subpart, shall not bring that unit under the applicability of this subpart.

4. Section 60.41 is amended by deleting "primary" in paragraph (a), revising paragraph (b), and deleting paragraph (c). As amended, § 60.41 reads as follows:

§ 60.41 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act, and in subpart A of this part.

(a) "Fossil fuel-fired steam generating unit" means a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer.

(b) "Fossil fuel" means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.

5. Section 60.42 is revised to read as follows:

§ 60.42 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 0.18 g per million cal heat input (0.10 lb per million Btu) derived from fossil fuel.

(2) Exhibit greater than 20 percent opacity except that a maximum of 40 percent opacity shall be permissible for not more than 2 minutes in any hour. Where the presence of uncombined water is the only reason for failure to meet the requirements of this paragraph, such failure will not be a violation of this section.

6. Section 60.43 is revised to read as follows:

§ 60.43 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of:

(1) 1.4 g per million cal heat input (0.80 lb per million Btu) derived from liquid fossil fuel.

(2) 2.2 g per million cal heat input (1.2 lb per million Btu) derived from solid fossil fuel.

(b) When different fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration using the following formula:

$$\frac{y(1.4)+z(2.2)}{y+z}$$

where:

y is the percentage of total heat input derived from liquid fossil fuel, and
z is the percentage of total heat input derived from solid fossil fuel.

(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels.

7. Section 60.44 is revised to read as follows:

§ 60.44 Standard for nitrogen oxides.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO_2 in excess of:

(1) 0.36 g per million cal heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.

(2) 0.54 g per million cal heat input (0.30 lb per million Btu) derived from liquid fossil fuel.

(3) 1.26 g per million cal heat input (0.70 lb per million Btu) derived from solid fossil fuel (except lignite).

(b) When different fossil fuels are burned simultaneously in any combination, the applicable standard shall be determined by proration. Compliance shall be determined by using the following formula:

$$\frac{x(0.36)+y(0.54)+z(1.26)}{x+y+z}$$

where:

x is the percentage of total heat input derived from gaseous fossil fuel,
y is the percentage of total heat input derived from liquid fossil fuel, and
z is the percentage of total heat input derived from solid fossil fuel (except lignite).

§ 60.45 [Amended]

8. Section 60.45 is amended by deleting and reserving paragraph (f).

9. Section 60.46 is revised to read as follows:

§ 60.46 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided for in § 60.8(b), shall be used to determine compliance with the standards prescribed in §§ 60.42, 60.43, and 60.44 as follows:

(1) Method 1 for sample and velocity traverses;

(2) Method 2 for velocity and volumetric flow rate;

(3) Method 3 for gas analysis;

(4) Method 5 for the concentration of particulate matter and the associated moisture content;

(5) Method 6 for the concentration of SO_2; and

(6) Method 7 for the concentration of NO_x.

(b) For Method 5, the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 0.85 dscm (30.0 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(c) For Methods 6 and 7, the sampling site shall be the same as that for determining volumetric flow rate. The sampling point in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft).

(d) For Method 6, the minimum sampling time shall be 20 minutes and the minimum sample volume shall be 0.02 dscm (0.71 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Administrator. The sample shall be extracted at a rate proportional to the gas velocity at the sampling point. The arithmetic average of two samples shall constitute one run. Samples shall be taken at approximately 30-minute intervals.

(e) For Method 7, each run shall consist of at least four grab samples taken at approximately 15-minute intervals. The arithmetic mean of the samples shall constitute the run values.

(f) Heat input, expressed in cal per hr (Btu/hr), shall be determined during each testing period by multiplying the heating value of the fuel by the rate of fuel burned. Heating value shall be determined in accordance with A.S.T.M. Method D2015–66 (Reapproved 1972), D240–64 (Reapproved 1973), or D1826–64 (Reapproved 1970). The rate of fuel burned during each testing period shall be determined by suitable methods, and shall be confirmed by a material balance over the steam generation system.

(g) For each run, emissions expressed in g/million cal shall be determined by dividing the emission rate in g/hr by the heat input. The emission rate shall be determined by the equation g/hr= Q_s x c where Q_s=volumetric flow rate of the total effluent in dscm/hr as determined for each run in accordance with paragraph (a)(2) of this section.

(1) For particulate matter, c=particulate concentration in g/dscm, as determined in accordance with paragraph (a)(4) of this section.

(2) For SO_2, c=SO_2 concentration in g/dscm, as determined in accordance with paragraph (a)(5) of this section.

(3) For NO_x, c=NO_x concentration in g/dscm, as determined in accordance with paragraph (a)(6) of this section.

10. Section 60.50 is revised to read as follows:

§ 60.50 Applicability and designation of affected facility.

The provisions of this subpart are applicable to each incinerator of more than 45 metric tons per day charging rate (50 tons/day), which is the affected facility.

§ 60.51 [Amended]

11. Section 60.51 is amended by striking the word "primary" in paragraph (a) and by deleting paragraph (d).

12. Section 60.52 is revised to read as follows:

§ 60.52 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this part shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.18 g/dscm (0.08 gr/dscf) corrected to 12 percent CO_2.

13. Section 60.53 is revised to read as follows:

§ 60.53 Monitoring of operations.

(a) The owner or operator of any incinerator subject to the provisions of this part shall record the daily charging rates and hours of operation.

14. Section 60.54 is revised to read as follows:

§ 60.54 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided for in § 60.8(b), shall be used to determine compliance with the standard prescribed in § 60.52 as follows:

(1) Method 5 for the concentration of particulate matter and the associated moisture content;

(2) Method 1 for sample and velocity traverses;

(3) Method 2 for velocity and volumetric flow rate; and

(4) Method 3 for gas analysis and calculation of excess air, using the integrated sample technique.

(b) For Method 5, the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 0.85 dscm (30.0 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(c) If a wet scrubber is used, the gas analysis sample shall reflect flue gas conditions after the scrubber, allowing for carbon dioxide absorption by sampling the gas on the scrubber inlet and outlet sides according to either the procedure under paragraphs (c) (1) through (c) (5) of this section or the procedure under paragraphs (c) (1), (c) (2) and (c) (6) of this section as follows:

(1) The outlet sampling site shall be the same as for the particulate matter measurement. The inlet site shall be selected according to Method 1, or as specified by the Administrator.

(2) Randomly select 9 sampling points within the cross-section at both the inlet and outlet sampling sites. Use the first set of three for the first run, the second set for the second run, and the third set for the third run.

(3) Simultaneously with each particulate matter run, extract and analyze for CO_2 an integrated gas sample according to Method 3, traversing the three sample points and sampling at each point for equal increments of time. Conduct the runs at both inlet and outlet sampling sites.

(4) Measure the volumetric flow rate at the inlet during each particulate matter run according to Method 2, using the full number of traverse points. For the inlet make two full velocity traverses approximately one hour apart during each run and average the results. The outlet volumetric flow rate may be determined from the particulate matter run (Method 5).

(5) Calculate the adjusted CO_2 percentage using the following equation:

$$(\%\ CO_2)_{adj} = (\%\ CO_2)_{di}\ (Q_{di}/Q_{do})$$

where:

$(\%\ CO_2)_{adj}$ is the adjusted CO_2 percentage which removes the effect of CO_2 absorption and dilution air,

$(\%\ CO_2)_{di}$ is the percentage of CO_2 measured before the scrubber, dry basis,

Q_{di} is the volumetric flow rate before the scrubber, average of two runs, dscf/min (using Method 2), and

Q_{do} is the volumetric flow rate after the scrubber, dscf/min (using Methods 2 and 5).

(6) Alternatively, the following procedures may be substituted for the procedures under paragraphs (c) (3), (4), and (5) of this section:

(i) Simultaneously with each particulate matter run, extract and analyze for CO_2, O_2, and N_2 an integrated gas sample according to Method 3, traversing the three sample points and sampling for equal increments of time at each point. Conduct the runs at both the inlet and outlet sampling sites.

(ii) After completing the analysis of the gas sample, calculate the percentage of excess air (% EA) for both the inlet and outlet sampling sites using equation 3-1 in Appendix A to this part.

(iii) Calculate the adjusted CO_2 percentage using the following equation:

$$(\%\ CO_2)_{adj} = (\%\ CO_2)_{di}\left[\frac{100+(\%\ EA)_i}{100+(\%\ EA)_o}\right]$$

where:

$(\%\ CO_2)_{adj}$ is the adjusted outlet CO_2 percentage,

$(\%\ CO_2)_{di}$ is the percentage of CO_2 measured before the scrubber, dry basis,

$(\%\ EA)_i$ is the percentage of excess air at the inlet, and

$(\%\ EA)_o$ is the percentage of excess air at the outlet.

(d) Particulate matter emissions, expressed in g/dscm, shall be corrected to 12 percent CO_2 by using the following formula:

$$c_{12} = \frac{12c}{\%\ CO_2}$$

where:

c_{12} is the concentration of particulate matter corrected to 12 percent CO_2,

c is the concentration of particulate matter as measured by Method 5, and

$\%\ CO_2$ is the percentage of CO_2 as measured by Method 3, or when applicable, the adjusted outlet CO_2 percentage as determined by paragraph (c) of this section.

§ 60.61 [Amended]

15. Section 60.61 is amended by deleting paragraph (b).

16. Section 60.62 is revised to read as follows:

§ 60.62 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any kiln any gases which:

(1) Contain particulate matter in excess of 0.15 kg per metric ton of feed (dry basis) to the kiln (0.30 lb per ton).

(2) Exhibit greater than 10 percent opacity.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any clinker cooler any gases which:

(1) Contain particulate matter in excess of 0.050 kg per metric ton of feed (dry basis) to the kiln (0.10 lb per ton).

(2) Exhibit 10 percent opacity, or greater.

(c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility other than the kiln and clinker cooler any gases which exhibit 10 percent opacity, or greater.

(d) Where the presence of uncombined water is the only reason for failure to meet the requirements of paragraphs (a) (2), (b) (2), and (c), such failure will not be a violation of this section.

17. Section 60.63 is revised to read as follows:

§ 60.63 Monitoring of operations.

(a) The owner or operator of any portland cement plant subject to the provisions of this part shall record the daily production rates and kiln feed rates.

18. Section 60.64 is revised to read as follows:

§ 60.64 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided for in § 60.8(b), shall be used to determine compliance with the standards prescribed in § 60.62 as follows:

(1) Method 5 for the concentration of particulate matter and the associated moisture content;

(2) Method 1 for sample and velocity traverses;

(3) Method 2 for velocity and volumetric flow rate; and

(4) Method 3 for gas analysis.

(b) For Method 5, the minimum sampling time and minimum sample volume for each run, except when process variables or other factors justify otherwise to the satisfaction of the Administrator, shall be as follows:

(1) 60 minutes and 0.85 dscm (30.0 dscf) for the kiln.

(2) 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler.

(c) Total kiln feed rate (except fuels), expressed in metric tons per hour on a dry basis, shall be determined during each testing period by suitable methods; and shall be confirmed by a material balance over the production system.

(d) For each run, particulate matter emissions, expressed in g/metric ton of kiln feed, shall be determined by dividing the emission rate in g/hr by the kiln feed rate. The emission rate shall be determined by the equation, $g/hr = Q_s \times c$, where Q_s = volumetric flow rate of the total effluent in dscm/hr as determined in accordance with paragraph (a) (3) of this section, and c = particulate concentration in g/dscm as determined in accordance with paragraph (a) (1) of this section.

19. Section 60.72 is revised to read as follows:

§ 60.72 Standard for nitrogen oxides.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain nitrogen oxides, expressed as NO_2, in excess of 1.5 kg per metric ton of acid produced (3.0 lb per ton), the production being expressed as 100 percent nitric acid.

(2) Exhibit 10 percent opacity, or greater. Where the presence of uncombined water is the only reason for failure to meet the requirements of this paragraph, such failure will not be a violation of this section.

§ 60.73 [Amended]

20. Section 60.73 is amended by deleting and reserving paragraph (d).

21. Section 60.74 is revised to read as follows:

§ 60.74 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided for in § 60.8(b), shall be used to determine compliance with the standard prescribed in § 60.72 as follows:

(1) Method 7 for the concentration of NO_x;

(2) Method 1 for sample and velocity traverses;

(3) Method 2 for velocity and volumetric flow rate; and

(4) Method 3 for gas analysis.

(b) For Method 7, the sample site shall be selected according to Method 1 and the sampling point shall be the centroid of the stack or duct or at a point no closer to the walls than 1 m (3.28 ft). Each run shall consist of at least four grab samples taken at approximately 15-minutes intervals. The arithmetic mean of the samples shall constitute the run value. A velocity traverse shall be performed once per run.

(c) Acid production rate, expressed in metric tons per hour of 100 percent nitric acid, shall be determined during each testing period by suitable methods and shall be confirmed by a material balance over the production system.

(d) For each run, nitrogen oxides, expressed in g/metric ton of 100 percent nitric acid, shall be determined by dividing the emission rate in g/hr by the acid production rate. The emission rate shall be determined by the equation,

$$g/hr = Q_s \times c$$

where Q_s = volumetric flow rate of the effluent in dscm/hr, as determined in accordance with paragraph (a)(3) of this section, and $c = NO_x$ concentration in g/dscm, as determined in accordance with paragraph (a)(1) of this section.

22. Section 60.81 is amended by revising paragraph (b) as follows:

§ 60.81 Definitions.

* * * * *

(b) "Acid mist" means sulfuric acid mist, as measured by Method 8 of Appendix A to this part or an equivalent or alternative method.

23. Section 60.82 is revised to read as follows:

§ 60.82 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H_2SO_4.

24. Section 60.83 is revised to read as follows:

§ 60.83 Standard for acid mist.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain acid mist, expressed as H_2SO_4, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H_2SO_4.

(2) Exhibit 10 percent opacity, or greater. Where the presence of uncombined water is the only reason for failure to meet the requirements of this paragraph, such failure will not be a violation of this section.

§ 60.84 [Amended]

25. Section 60.84 is amended by deleting and reserving paragraph (d).

26. Section 60.85 is revised to read as follows:

§ 60.85 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided for in § 60.8(b), shall be used to determine compliance with the standards prescribed in §§ 60.82 and 60.83 as follows:

(1) Method 8 for the concentrations of SO_2 and acid mist;

(2) Method 1 for sample and velocity traverses;

(3) Method 2 for velocity and volumetric flow rate; and

(4) Method 3 for gas analysis.

(b) The moisture content can be considered to be zero. For Method 8 the sampling time for each run shall be at least 60 minutes and the minimum sample volume shall be 1.15 dscm (40.6 dscf) except that smaller sampling times or sample volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(c) Acid production rate, expressed in metric tons per hour of 100 percent H_2SO_4, shall be determined during each testing period by suitable methods and shall be confirmed by a material balance over the production system.

(d) Acid mist and sulfur dioxide emissions, expressed in g/metric ton of 100 percent H_2SO_4, shall be determined by dividing the emission rate in g/hr by the acid production rate. The emission rate shall be determined by the equation, $g/hr = Q_s \times c$, where Q_s = volumetric flow rate of the effluent in dscm/hr as determined in accordance with paragraph (a)(3) of this section, and c = acid mist and SO_2 concentrations in g/dscm as determined in accordance with paragraph (a)(1) of this section.

§ 60.110 [Amended]

27. Section 60.110(b) is amended by striking the words "the crude."

28. In § 60.111, paragraphs (b), (d), (g), and (h) are revised.

As amended § 60.111 reads as follows:

§ 60.111 Definitions.

* * * * *

(b) "Petroleum liquids" means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Number 2 through Number 6 fuel oils as specified in A.S.T.M. D396-69, gas turbine fuel oils Numbers 2-GT through 4-GT as specified in A.S.T.M. D2880-71, or diesel fuel oils Numbers 2-D and 4-D as specified in A.S.T.M. D975-68.

* * * * *

(d) "Petroleum" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

* * * * *

(g) "Custody transfer" means the transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

(h) "Drilling and production facility" means all drilling and servicing equipment, wells, flow lines, separators, equipment, gathering lines, and auxiliary nontransportation-related equipment used in the production of petroleum but does not include natural gasoline plants.

* * * * *

29. The appendix to Part 60 titled "Appendix—Test Methods" is retitled "Appendix A—Reference Methods."

[FR Doc.74-13633 Filed 6-13-74;8:45 am]

Title 41—Public Contracts and Property Management

CHAPTER 15—ENVIRONMENTAL PROTECTION AGENCY

PART 15-1—GENERAL

PART 15-26—CONTRACT MODIFICATIONS

Novation and Change of Name Agreements

Chapter 15 of the Code of Federal Regulations is amended as set forth below. Subpart 15-1.51 is deleted because the Federal Procurement Regulations have issued a regulation on the same subject, Novation and Change of Name Agreements. A new subpart 15-26.4 is added to set forth internal procedures relative to the processing of such agreements.

It is the general policy of the EPA to allow time for interested parties to participate in the rule making process. However, the amendments herein concern administrative matters. Therefore, the

(b) has been added to § 600.15 to provide for such exemption upon approval by the Director, Bureau of Biologics, on a product-by-product basis, in the form of an amendment to the product license.

3. One comment urged that as an alternative to prescribing a fixed shipping temperature, shipment of the products above 10° C be permitted for a specific period of time determined by each manufacturer based on the properties of the product, provided that the label on shipping containers and individual packages of such products contain a warning statement that "The temperature of this product must not be allowed to rise above 10° C for a period longer than (*insert period of time*)."

The Commissioner finds that the recommendation is inadequate. As stated in the preamble of the proposal, data before the Commissioner establish that continuous cold storage of the products is necessary to ensure that there is no loss of potency. The effect of removal from cold storage is unpredictable due to variances in the temperature of the environment to which these products are removed and the length of time they remain at that temperature. Temperatures can be expected to vary widely in different climates and weather conditions. Therefore, a uniform label storage statement does not provide a reliable means for assuring a temperature that will not compromise the product. It should be noted, however, that the Commissioner's order does not preclude removal of products from cold storage for short periods of time, as long as the temperature of the product does not rise above 10° C. Procedures must be developed by distributors of these measles, mumps and rubella virus vacines to ensure compliance with the temperature requirement. Such procedures are not unusual and are regularly used by distributors of other products subject to loss of potency or other similar alteration.

In the interest of having specific shipping temperature information readily accessible to everyone transporting the vaccines listed in § 600.15, the Commissioner will issue a proposal in the near future to amend § 610.61 (21 CFR 610.61) to require that such information be listed on the package label.

Having considered the comments received and all relevant material regarding specified shipping temperatures for live measles, mumps and rubella virus vaccines, the Commissioner concludes that the proposal should be adopted as modified (1) by designating the list of products as paragraph (a), (2) by amending the listing in the second column to quantify the expression "a temperature which will maintain ice continuously in a solid state" to a temperature of "0° C or colder" for poliovirus vaccine live, oral types 1, 2, 3, smallpox vaccine, liquid, and yellow fever vaccine, and (3) by adding a new paragraph (b) to provide for exemptions.

Therefore, pursuant to the provisions of the Public Health Service Act (sec. 351, 58 Stat. 702 as amended; 42 U.S.C. 262) and under authority delegated to the Commissioner (21 CFR 2.120), § 600.15 is revised as follows:

§ 600.15 Temperatures during shipment.

The following products shall be maintained during shipment at the specified temperatures:

(a) *Products.*

Product:	*Temperature*
Cryoprecipitated antihemophilic factor (human)	—18° C or colder.
Measles, mumps, and rubella virus vaccine, live	10° C or colder.
Measles and rubella virus vaccine, live	Do.
Measles-smallpox vaccine, live	Do.
Measles virus vaccine, live, attenuated	Do.
Mumps virus vaccine, live	Do.
Poliovirus vaccine, live, oral, type 1	0° C or colder.
Poliovirus vaccine, live, oral, type 2	Do.
Poliovirus vaccine, live, oral, type 3	Do.
Poliovirus vaccine, live, oral, trivalent	Do.
Red blood cells (human), frozen	—65° C or colder.
Red blood cells (human), liquid	Between 1° and 10° C.
Rubella and mumps, virus, live	10° C or colder.
Rubella virus vaccine, live	Do.
Single donor plasma (human), frozen	—18° C or colder.
Smallpox vaccine, liquid	0° C or colder.
Source plasma (human)	—5° C or colder.
Whole blood (human)	Between 1° and 10° C.
Yellow fever vaccine	0° C or colder.

(b) *Exemptions.* Exemptions or modifications shall be made only upon written approval, in the form of an amendment of the product license, issued by the Director, Bureau of Biologics.

Effective date. This order shall become effective on December 12, 1974.

(Sec. 351, 58 Stat. 702 as amended; (42 U.S.C. 262))

Dated: November 5, 1974.

SAM D. FINE,
Associate Commissioner for Compliance.

[FR Doc.74-26450 Filed 11-11-74;8:45 am]

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER C—AIR PROGRAMS

[FRL 291-6]

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Opacity Provisions

On June 29, 1973, the United States Court of Appeals for the District of Columbia in "Portland Cement Association v. Ruckelshaus," 486 F. 2d 375 (1973) remanded to EPA the standard of performance for Portland cement plants (40 CFR 60.60 et seq.) promulgated by EPA under section 111 of the Clean Air Act. In the remand, the Court directed EPA to reconsider among other things the use of the opacity standards. EPA has prepared a response to the remand. Copies of this response are available from the Emission Standards and Engineering Division, Environmental Protection Agency, Research Triangle Park, N.C. 27711, Attn: Mr. Don R. Goodwin. In developing the response, EPA collected and evaluated a substantial amount of information which is summarized and referenced in the response. Copies of this information are available for inspection during normal office hours at EPA's Office of Public Affairs, 401 M Street SW., Washington, D.C. EPA determined that the Portland cement plant standards generally did not require revision but did not find that certain revisions are appropriate to the opacity provisions of the standards. The provisions promulgated herein include a revision to § 60.11, Compliance with Standards and Maintenance Requirements, a revision to the opacity standard for Portland cement plants, and revisions to Reference Method 9. The bases for the revisions are discussed in detail in the Agency's response to the remand. They are summarized below.

The revisions to § 60.11 include the modification of paragraph (b) and the addition of paragraph (e). Paragraph (b) has been revised to indicate that while Reference Method 9 remains the primary and accepted means for determining compliance with opacity standards in this part, EPA will accept as probative evidence in certain situations and under certain conditions the results of continuous monitoring by transmissometer to determine whether a violation has in fact occurred. The revision makes clear that even in such situations the results of opacity readings by Method 9 remain presumptively valid and correct.

The provisions in paragraph (e) provide a mechanism for an owner or operator to petition the Administrator to establish an opacity standard for an affected facility where such facility meets all applicable standards for which a performance test is conducted under § 60.8 but fails to meet an applicable opacity standard. This provision is intended primarily to apply to cases where a source installs a very large diameter stack which causes the opacity of the emissions to be

greater than if a stack of the diameter ordinarily used in the industry were installed. Although this situation is considered to be very unlikely to occur, this provision will accommodate such a situation. The provision could also apply to other situations where for any reason an affected facility could fail to meet opacity standards while meeting mass emission standards, although no such situations are expected to occur.

A revision to the opacity standard for Portland cement plants is promulgated herein. The revision changes the opacity limit for kilns from 10 percent to 20 percent. This revision is based on EPA's policy on opacity standards and the new emission data from Portland cement plants evaluated by EPA during its reconsideration. The preamble to the standards of performance which were promulgated on March 8, 1974 (39 FR 9308) sets forth EPA's policy on opacity standards: (1) Opacity limits are independent enforceable standards; (2) where opacity and mass/concentration standards are applicable to the same source, the mass/concentration standards are established at a level which will result in the design, installation, and operation of the best adequately demonstrated system of emission reduction (taking costs into account); and (3) the opacity standards are established at a level which will require proper operation and maintenance of such control systems. The new data indicate that increasing the opacity limits for kilns from 10 percent to 20 percent is justified, because such a standard will still require the design, installation, and operation of the best adequately demonstrated system of emission reduction (taking costs into account) while eliminating or minimizing the situations where it will be necessary to promulgate a new opacity standard under § 60.11(e).

In evaluating the accuracy of results from qualified observers following the procedures of Reference Method 9, EPA determined that some revisions to Reference Method 9 are consistently able to evaluation showed that observers trained and certified in accordance with the procedures prescribed under Reference Method 9 are consistently able to read opacity with errors not exceeding ± 7.5 percent based upon single sets of the average of 24 readings. The revisions to Reference Method 9 include the following:

1. An introductory section is added. This includes a discussion of the concept of visible emission reading and describes the effect of variable viewing conditions. Information is also presented concerning the accuracy of the method noting that the accuracy of the method must be taken into account when determining possible violations of applicable opacity standards.

2. Provisions are added which specify that the determination of opacity requires averaging 24 readings taken at 15-second intervals. The purpose for taking 24 readings is both to extend the averaging time over which the observations are made, and to take sufficient readings to insure acceptable accuracy.

3. More specific criteria concerning observer position with respect to the sun are added. Specifically, the sun must be within a 140° sector to the observer's back.

4. Criteria concerning an observer's position with respect to the plume are added. Specific guidance is also provided for reading emissions from rectangular emission points with large length to width ratios, and for reading emissions from multiple stacks. In each of these cases, emissions are to be read across the shortest path length.

5. Provisions are added to make clear that opacity of contaminated water or steam plumes is to be read at a point where water does not exist in condensed form. Two specific instructions are provided: One for the case where opacity can be observed prior to the formation of the condensed water plume, and one for the case where opacity is to be observed after the condensed water plume has dissipated.

6. Specifications are added for the smoke generator used for qualification of observers so that State or local air pollution control agencies may provide observer qualification training consistent with EPA training.

In developing this regulation we have taken into account the comments received in response to the September 11, 1974 (39 FR 35852) notice of proposed rulemaking which proposed among other things certain minor changes to Reference Method 9. This regulation represents the rulemaking with respect to the revisions to Method 9.

The determination of compliance with applicable opacity standards will be based on an average of 24 consecutive opacity readings taken at 15 second intervals. This approach is a satisfactory means of enforcing opacity standards in cases where the violation is a continuing one and time exceptions are not part of the applicable opacity standard. However, the opacity standards for steam electric generators in 40 CFR 60.42 and fluid catalytic cracking unit catalyst regenerators in 40 CFR 60.102 and numerous opacity standards in State implementation plans specify various time exceptions. Many State and local air pollution control agencies use a different approach in enforcing opacity standards than the six-minute average period specified in this revision to Method 9. EPA recognizes that certain types of opacity violations that are intermittent in nature require a different approach in applying the opacity standards than this revision to Method 9. It is EPA's intent to propose an additional revision to Method 9 specifying an alternative method to enforce opacity standards. It is our intent that this method specify a minimum number of readings that must be taken, such as a minimum of ten readings above the standard in any one hour period prior to citing a violation. EPA is in the process of analyzing available data and determining the error involved in reading opacity in this manner and will propose this revision to Method 9 as soon as this analysis is completed. The Agency solicits comments and recommendations on the need for this additional revision to Method 9 and would welcome any suggestions particularly from air pollution control agencies on how we might make Method 9 more responsive to the needs of these agencies.

These actions are effective on November 12, 1974. The Agency finds good cause exists for not publishing these actions as a notice of proposed rulemaking and for making them effective immediately upon publication for the following reasons:

(1) Only minor amendments are being made to the opacity standards which were remanded.

(2) The U.S. Court of Appeals for the District of Columbia instructed EPA to complete the remand proceeding with respect to the Portland cement plant standards by November 5, 1974.

(3) Because opacity standards are the subject of other litigation, it is necessary to reach a final determination with respect to the basic issues involving opacity at this time in order to properly respond to this issue with respect to such other litigation.

These regulations are issued under the authority of sections 111 and 114 of the Clean Air Act, as amended (42 U.S.C. 1857c–6 and 9).

Dated: November 1, 1974.

JOHN QUARLES,
Acting Administrator.

Part 60 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

1. Section 60.11 is amended by revising paragraph (b) and adding paragraph (e), reading as follows:

§ 60.11 Compliance with standards and maintenance requirements.

* * * * *

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in Appendix B of this part, has been properly maintained and (at the time of the alleged violation) calibrated, and that the resulting data have not been tampered with in any way.

* * * * *

(e) (1) An owner or operator of an affected facility may request the Admin-

istrator to determine opacity of emissions from the affected facility during the initial performance tests required by § 60.8.

(2) Upon receipt from such owner or operator of the written report of the results of the performance tests required by § 60.8, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with § 60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(3) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(4) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

2. In § 60.62, paragraph (a)(2) is revised to read as follows:

§ 60.62 Standard for particulate matter.

(a) * * *

(2) Exhibit greater than 20 percent opacity.

* * * * *

3. Appendix A—Reference Methods is amended by revising Reference Method 9 as follows:

APPENDIX A—REFERENCE METHODS

* * * * *

METHOD 9—VISUAL DETERMINATION OF THE OPACITY OF EMISSIONS FROM STATIONARY SOURCES

Many stationary sources discharge visible emissions into the atmosphere; these emissions are usually in the shape of a plume. This method involves the determination of plume opacity by qualified observers. The method includes procedures for the training and certification of observers, and procedures to be used in the field for determination of plume opacity. The appearance of a plume as viewed by an observer depends upon a number of variables, some of which may be controllable and some of which may not be controllable in the field. Variables which can be controlled to an extent to which they no longer exert a significant influence upon plume appearance include: Angle of the observer with respect to the plume; angle of the observer with respect to the sun; point of observation of attached and detached steam plume; and angle of the observer with respect to a plume emitted from a rectangular stack with a large length to width ratio. The method includes specific criteria applicable to these variables.

Other variables which may not be controllable in the field are luminescence and color contrast between the plume and the background against which the plume is viewed. These variables exert an influence upon the appearance of a plume as viewed by an observer, and can affect the ability of the observer to accurately assign opacity values to the observed plume. Studies of the theory of plume opacity and field studies have demonstrated that a plume is most visible and presents the greatest apparent opacity when viewed against a contrasting background. It follows from this, and is confirmed by field trials, that the opacity of a plume, viewed under conditions where a contrasting background is present can be assigned with the greatest degree of accuracy. However, the potential for a positive error is also the greatest when a plume is viewed under such contrasting conditions. Under conditions presenting a less contrasting background, the apparent opacity of a plume is less and approaches zero as the color and luminescence contrast decrease toward zero. As a result, significant negative bias and negative errors can be made when a plume is viewed under less contrasting conditions. A negative bias decreases rather than increases the possibility that a plant operator will be cited for a violation of opacity standards due to observer error.

Studies have been undertaken to determine the magnitude of positive errors which can be made by qualified observers while reading plumes under contrasting conditions and using the procedures set forth in this method. The results of these studies (field trials) which involve a total of 769 sets of 25 readings each are as follows:

(1) For black plumes (133 sets at a smoke generator), 100 percent of the sets were read with a positive error[1] of less than 7.5 percent opacity; 99 percent were read with a positive error of less than 5 percent opacity.

(2) For white plumes (170 sets at a smoke generator, 168 sets at a coal-fired power plant, 298 sets at a sulfuric acid plant), 99 percent of the sets were read with a positive error of less than 7.5 percent opacity; 95 percent were read with a positive error of less than 5 percent opacity.

The positive observational error associated with an average of twenty-five readings is therefore established. The accuracy of the method must be taken into account when determining possible violations of applicable opacity standards.

1. *Principle and applicability.*

1.1 Principle. The opacity of emissions from stationary sources is determined visually by a qualified observer.

1.2 Applicability. This method is applicable for the determination of the opacity of emissions from stationary sources pursuant to § 60.11(b) and for qualifying observers for visually determining opacity of emissions.

2. *Procedures.* The observer qualified in accordance with paragraph 3 of this method shall use the following procedures for visually determining the opacity of emissions:

2.1 Position. The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction, and when observing opacity of emissions from rectangular outlets (e.g. roof monitors, open baghouses, noncircular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g. stub stacks on baghouses).

2.2 Field records. The observer shall record the name of the plant, emission location, type facility, observer's name and affiliation, and the date on a field data sheet (Figure 9–1). The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on a field data sheet at the time opacity readings are initiated and completed.

2.3 Observations. Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15-second intervals.

2.3.1 Attached steam plumes. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

2.3.2 Detached steam plume. When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

2.4 Recording observations. Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. (See Figure 9–2 for an example.) A minimum of 24 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

2.5 Data Reduction. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. If an applicable standard specifies an averaging time requiring more than 24 observations, calculate the average for all observations made during the specified time period. Record the average opacity on a record sheet. (See Figure 9–1 for an example.)

3. *Qualifications and testing.*

3.1 Certification requirements. To receive certification as a qualified observer, a candidate must be tested and demonstrate the ability to assign opacity readings in 5 percent increments to 25 different black plumes and 25 different white plumes, with an error

[1] For a set, positive error—average opacity determined by observers' 25 observations—average opacity determined from transmissometer's 25 recordings.

not to exceed 15 percent opacity on any one reading and an average error not to exceed 7.5 percent opacity in each category. Candidates shall be tested according to the procedures described in paragraph 3.2. Smoke generators used pursuant to paragraph 3.2 shall be equipped with a smoke meter which meets the requirements of paragraph 3.3.

The certification shall be valid for a period of 6 months, at which time the qualification procedure must be repeated by any observer in order to retain certification.

3.2 Certification procedure. The certification test consists of showing the candidate a complete run of 50 plumes—25 black plumes and 25 white plumes—generated by a smoke generator. Plumes within each set of 25 black and 25 white runs shall be presented in random order. The candidate assigns an opacity value to each plume and records his observation on a suitable form. At the completion of each run of 50 readings, the score of the candidate is determined. If a candidate fails to qualify, the complete run of 50 readings must be repeated in any retest. The smoke test may be administered as part of a smoke school or training program, and may be preceded by training or familiarization runs of the smoke generator during which candidates are shown black and white plumes of known opacity.

3.3 Smoke generator specifications. Any smoke generator used for the purposes of paragraph 3.2 shall be equipped with a smoke meter installed to measure opacity across the diameter of the smoke generator stack. The smoke meter output shall display in-stack opacity based upon a pathlength equal to the stack exit diameter on a full 0 to 100 percent chart recorder scale. The smoke meter optical design and performance shall meet the specifications shown in Table 9–1. The smoke meter shall be calibrated as prescribed in paragraph 3.3.1 prior to the conduct of each smoke reading test. At the completion of each test, the zero and span drift shall be checked and if the drift exceeds ±1 percent opacity, the condition shall be corrected prior to conducting any subsequent test runs. The smoke meter shall be demonstrated, at the time of installation, to meet the specifications listed in Table 9–1. This demonstration shall be repeated following any subsequent repair or replacement of the photocell or associated electronic circuitry including the chart recorder or output meter, or every 6 months, whichever occurs first.

TABLE 9–1—SMOKE METER DESIGN AND PERFORMANCE SPECIFICATIONS

Parameter:	*Specification*
a. Light source	Incandescent lamp operated at nominal rated voltage.
b. Spectral response of photocell.	Photopic (daylight spectral response of the human eye—reference 4.3).
c. Angle of view	15° maximum total angle.
d. Angle of projection.	15° maximum total angle.
e. Calibration error.	±3% opacity, maximum.
f. Zero and span drift.	±1% opacity, 30 minutes.
g. Response time	≤5 seconds.

3.3.1 Calibration. The smoke meter is calibrated after allowing a minimum of 30 minutes warmup by alternately producing simulated opacity of 0 percent and 100 percent. When stable response at 0 percent or 100 percent is noted, the smoke meter is adjusted to produce an output of 0 percent or 100 percent, as appropriate. This calibration shall be repeated until stable 0 percent and 100 percent readings are produced without adjustment. Simulated 0 percent and 100 percent opacity values may be produced by alternately switching the power to the light source on and off while the smoke generator is not producing smoke.

3.3.2 Smoke meter evaluation. The smoke meter design and performance are to be evaluated as follows:

3.3.2.1 Light source. Verify from manufacturer's data and from voltage measurements made at the lamp, as installed, that the lamp is operated within ±5 percent of the nominal rated voltage.

3.3.2.2 Spectral response of photocell. Verify from manufacturer's data that the photocell has a photopic response; i.e., the spectral sensitivity of the cell shall closely approximate the standard spectral-luminosity curve for photopic vision which is referenced in (b) of Table 9–1.

3.3.2.3 Angle of view. Check construction geometry to ensure that the total angle of view of the smoke plume, as seen by the photocell, does not exceed 15°. The total angle of view may be calculated from: $\theta = 2 \tan^{-1} d/2L$, where θ = total angle of view; d = the sum of the photocell diameter + the diameter of the limiting aperture; and L = the distance from the photocell to the limiting aperture. The limiting aperture is the point in the path between the photocell and the smoke plume where the angle of view is most restricted. In smoke generator smoke meters this is normally an orifice plate.

3.3.2.4 Angle of projection. Check construction geometry to ensure that the total angle of projection of the lamp on the smoke plume does not exceed 15°. The total angle of projection may be calculated from: $\theta = 2 \tan^{-1} d/2L$, where θ = total angle of projection; d = the sum of the length of the lamp filament + the diameter of the limiting aperture; and L = the distance from the lamp to the limiting aperture.

3.3.2.5 Calibration error. Using neutral-density filters of known opacity, check the error between the actual response and the theoretical linear response of the smoke meter. This check is accomplished by first calibrating the smoke meter according to 3.3.1 and then inserting a series of three neutral-density filters of nominal opacity of 20, 50, and 75 percent in the smoke meter pathlength. Filters calibarted within ±2 percent shall be used. Care should be taken when inserting the filters to prevent stray light from affecting the meter. Make a total of five nonconsecutive readings for each filter. The maximum error on any one reading shall be 3 percent opacity.

3.3.2.6 Zero and span drift. Determine the zero and span drift by calibrating and operating the smoke generator in a normal manner over a 1-hour period. The drift is measured by checking the zero and span at the end of this period.

3.3.2.7 Response time. Determine the response time by producng the series of five simulated 0 percent and 100 percent opacity values and observing the time required to reach stable response. Opacity values of 0 percent and 100 percent may be simulated by alternately switching the power to the light source off and on while the smoke generator is not operating.

4. *References.*

4.1 Air Pollution Control District Rules and Regulations, Los Angeles County Air Pollution Control District, Regulation IV, Prohibitions, Rule 50.

4.2 Weisburd, Melvin I., Field Operations and Enforcement Manual for Air, U.S. Environmental Protection Agency, Research Triangle Park, N.C., APTD–1100, August 1972, pp. 4.1–4.36.

4.3 Condon, E. U., and Odishaw, H., Handbook of Physics, McGraw-Hill Co., N.Y., N.Y., 1958, Table 3.1, p. 6–52.

FIGURE 9-1
RECORD OF VISUAL DETERMINATION OF OPACITY

PAGE___of___

COMPANY_____
LOCATION_____
TEST NUMBER_____
DATE_____
TYPE FACILITY_____
CONTROL DEVICE_____

HOURS OF OBSERVATION_____
OBSERVER_____
OBSERVER CERTIFICATION DATE_____
OBSERVER AFFILIATION_____
POINT OF EMISSIONS_____
HEIGHT OF DISCHARGE POINT_____

	Initial			Final
CLOCK TIME				
OBSERVER LOCATION Distance to Discharge				
Direction from Discharge				
Height of Observation Point				
BACKGROUND DESCRIPTION				
WEATHER CONDITIONS Wind Direction				
Wind Speed				
Ambient Temperature				
SKY CONDITIONS (clear, overcast, % clouds, etc.)				
PLUME DESCRIPTION Color				
Distance Visible				
OTHER INFORMATION				

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start--End	Sum	Average

Readings ranged from ____ to ____ % opacity

The source was/was not in compliance with ____ at the time evaluation was made.

FIGURE 9-2 OBSERVATION RECORD PAGE ___ OF ___

COMPANY _____ OBSERVER _____
LOCATION _____ TYPE FACILITY _____
TEST NUMBER _____ POINT OF EMISSIONS _____
DATE _____

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							
	21							
	22							
	23							
	24							
	25							
	26							
	27							
	28							
	29							

FIGURE 9-2 OBSERVATION RECORD (Continued) PAGE ___ OF ___

COMPANY _____ OBSERVER _____
LOCATION _____ TYPE FACILITY _____
TEST NUMBER _____ POINT OF EMISSIONS _____
DATE _____

Hr.	Min.	Seconds 0	15	30	45	STEAM PLUME (check if applicable) Attached	Detached	COMMENTS
	30							
	31							
	32							
	33							
	34							
	35							
	36							
	37							
	38							
	39							
	40							
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Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER C—AIR PROGRAMS

[FRL 302-4]

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Prevention of Significant Air Quality Deterioration

On May 31, 1972 (37 FR 10842), the Administrator of the Environmental Protection Agency published initial approvals and disapprovals of State Implementation Plans submitted pursuant to section 110 of the Clean Air Act, as amended in 1970.

On November 9, 1972 (37 FR 23836), all State Implementation Plans were disapproved insofar as they failed to provide for the prevention of significant deterioration of existing air quality. This action was taken in response to a preliminary injunction issued by the District Court for the District of Columbia, which also required the administrator to promulgate regulations as to any state plan which either permits the significant deterioration of air quality in any portion of any state, or fails to take the measures necessary to prevent such significant deterioration.

Accordingly, on July 16, 1973 (38 FR 18986), an initial notice of proposed rulemaking was published which set forth four alternative plans for preventing significant deterioration, and which solicited widespread public involvement in all aspects of the significant deterioration issue. A series of public hearings were held and over 300 written comments were submitted in response to this proposal. The hearing records and the written comments are available for inspection at the EPA Freedom of Information Office, 401 M Street, SW., Washington, D.C.

Due to the lack of precise direction either in the Clean Air Act or in the Court order, the initial proposals focused on the conceptual basis for regulations. The comments received on the proposed regulations therefore tended primarily to discuss conceptual issues such as the roles of federal and state/local governments, rather than detailed comments regarding implementation of the regulations. Accordingly, on August 27, 1974 (39 FR 31000), the Administrator issued reproposed regulations in order to properly explore all aspects of this issue and to focus more clearly on procedural and technical issues.

The Administration has submitted for consideration an amendment to the Act which would eliminate the requirement for preventing significant deterioration of air quality. This amendment is pending before the Congress. Although EPA does not endorse this amendment, EPA seeks full public debate on the significant deterioration issue and in issuing these regulations does not intend to delay or influence consideration of this amendment. The regulations issued herein are necessary because the Court has ruled that the current Clean Air Act requires the Administrator to prevent signficant deterioration, and this requirement must be met even though it is possible that Congress may provide additional guidance and/or legislative changes in the future.

The regulations proposed on August 27, 1974, called for the establishment of "classes" of different allowable incremental increases in total suspended particulates (TSP) and sulfur dioxide (SO_2). Class I applied to areas in which practically any change in air quality would be considered significant; Class II applied to areas in which deterioration normally accompanying moderate well-controlled growth would be considered insignificant; and Class III applied to those areas in which deterioration up to the national standards would be considered insignificant. Under the proposed regulation, all areas of the country would be designated Class II initially, with provisions for allowing States to reclassify any area to accommodate the social, economic, and environmental needs and desires of the public.

The plan would be implemented through a preconstruction review of specified source categories to determine whether these sources would cause a violation of the appropriate increments. The new source review also included a provision requiring the use of best available control technology on sources covered by the regulation. Finally, the proposal provided procedures for public comment on each application for permission to construct and for delegating the responsibility for implementing the new source review procedures to States or local governmental units.

Discussion of Public Comments

The August 27 proposal was criticized by environmental groups as being unresponsive to the District Court's order in that it permits the deterioration of air quality up to the national standards in Class III regions. Although this result could also occur in Class I or Class II regions where the difference between existing air quality and the national standard is less than the prescribed air quality increment, all such comments focused on the provision for Class III areas. Unless "significant deterioration" is defined as a percentage of the "unused" air resource, any air quality increment plan, regardless of how small the increment is, could allow deterioration up to the national standard in some instances. As discussed in the preamble to the proposals of July 16, 1973, and August 27, 1974, air quality monitoring is presently concentrated in heavily polluted areas, with only scattered monitoring in relatively clean areas. Vast numbers of additional monitors will be necessary to precisely define existing air quality, making a plan that is dependent on a knowledge of existing air quality virtually unworkable. Therefore, the fact that air quality could, in some instances, increase to the national standard, does not, in the Administrator's opinion, make the August 27 proposal inconsistent with the Court's ruling.

Additional comments involving Class III areas indicated that economic and social factors should have no bearing on the definition of significant deterioration. These comments stated that EPA must consider only air quality factors and that a single nationwide definition of significant deterioration must be established. Such comments did not take issue with Agency statements made on July 16, 1973, and August 27, 1974 that the definition of significant deterioration is basically a subjective decision. None of the comments suggesting changes to the increments proposed by the Administrator, or proposing alternate plans, offered any justification for the numbers which were selected. Since the consideration of "air quality factors" alone essentially leads to an arbitrary definition of what is "significant," this term only has meaning when the economic and social implications are analyzed and considered. Therefore, the Administrator believes that it is most important to recognize and consider these implications, since the consideration of air quality factors alone provides no basis for selecting one deterioration increment over another.

Even in the subjective terms that are required when considering only the environmental aspects, the contention that there must be a single definition of significant deterioration applicable nationwide does not appear to address the wide range of environmental needs which exist. Most of the comments implicitly recognized that there is a need to develop resources in presently clean areas of the country, and that significant deterioration regulations should not preclude all growth, but should ensure that growth occurs in an environmentally acceptable manner. However, there are some areas, such as national parks, where any deterioration would probably be viewed as significant. A single nationwide deterioration increment would not be able to accommodate these two situations.

Along these lines, comments were specifically requested in the proposal as to whether the Class II increment should be doubled. Power companies generally supported such a change, while other comments from the industrial sector indicated that the increments were adequate for well-controlled growth. Power companies indicated that many new plants would be much larger than those which would be allowed in a Class II area (approximately 1000 megawatts), and that the Class II increment ought to accommodate such development. None of the comments presented any reasons for permitting such development in a Class II rather than a Class III area, except that the initial designation of all areas will be Class II. The Administrator continues to feel that a Class II increment should be compatible with moderate, well-controlled development in a nationwide context, and that large-scale development should be permitted only in conjunction with a conscious decision to redesignate the area as Class III.

Many comments also criticized the omission of carbon monoxide (CO), nitrogen oxides (NOx), hydrocarbons (HC), and photochemical oxidants (Ox) from the regulations. As indicated on July 16, 1973, and August 27, 1974, and in previous actions involving indirect source review (38 FR 29893 at 29894, 39 FR 7270 at 7272, and 39 FR 25292 at 25295), existing analytical procedures are not adequate to determine the impact of individual sources on air quality concentrations of reactive pollutants (NOx and HC/Ox). The only presently available technique for relating emissions to air quality for these pollutants is the areawide proportional model used for demonstrating the adequacy of control strategies. The proportional model requires that measured air quality data be available; however, as indicated above, such data are very limited in presently clean areas (even more so than for TSP and SO_2). In contrast, the air quality concentration of stable pollutants can reasonably be estimated using a diffusion model and therefore measured air quality data are not necessary to determine the incremental air quality impact of an individual source. In addition, since the proportional model assumes that air quality is proportional to emissions, the key to analyzing the impact of an individual source focuses on the definition of baseline emissions. If the source would be located in a very clean area with virtually no baseline emissions, then the predicted air quality increase would be very large (when in fact it probably would not). If the source would be located in a large metropolitan area and the baseline emissions are those of the entire metropolitan area, then the predicted impact of a single additional source would be very small. Therefore, the proportional model is adequate for control strategy development in urban areas where measured air quality data are available and the aggregate impact of controlling many sources is being analyzed. However, it is inappropriate for analyzing the incremental impact of individual new sources.

At this time, the only practical approach for dealing with these pollutants appears to be to minimize emissions as much as possible. The Federal Motor Vehicle Control Program accomplishes this for individual motor vehicles. New source performance standards (NSPS) have already been established under Part 60 of this chapter for many of the source categories subject to the regulation. Where practicable, emission limitations for CO, NOx, and HC have been promulgated for those sources presently subject to Part 60. Although some of the source categories are not yet included in Part 60, either (1) those that are not covered are not significant emitters of CO, NOx, or HC, or (2) control technology for these pollutants is unavailable or an emission limitation is impractical (e.g. HC emissions from coke ovens).

One additional step which could be taken to minimize emission of CO, NOx, and HC appears to be in the area of minimizing vehicle miles of travel (VMT). Plans for reducing VMT and minimizing future VMT growth have been developed as part of the Transportation Control Plans (TCP) promulgated elsewhere in this chapter. Since the TCP's focus on major metropolitan areas, the flexibility available in designing these plans would be more limited when applied to rural and outlying areas. It is clear, however, that comprehensive transportation planning offers an appropirate mechanism for minimizing VMT growth in such areas. It is not clear, however, how EPA might become involved in comprehensive transportation planning throughout the country under these regulations, although States may wish to consider such an approach when developing their own plans to prevent significant deterioration. States of course, are not precluded from including other more comprehensive measures for dealing with HC, CO, and NOx in their own plans.

Some difficult additional questions arise as to how this concept of VMT minimization could be incorporated into these significant deterioration regulations. Would the addition of a VMT increment, similar to the air quality increment approach used in these regulations, be appropriate? Would a new source review of specific indirect sources be practical, or should the review apply to larger scale projects such as a new town or a large new development? The Administrator solicits additional comments on this issue and may modify the regulation at a later date if workable procedures in this area can be developed.

The August 27 proposal specified that all areas of the country, including those areas above the national standards, would be subject to the significant deterioration regulations, even though the District Court order only required the prevention of significant deterioration in areas presently below the national standards. This was done because it was not possible to specify in these regulations all areas of the country which exceed the national ambient air quality standards. In addition, there would be no practical impact of these significant deterioration regulations in areas above the standards, since emissions in such areas are being reduced under the state implementation plans, while these regulations provide for limited allowable increases in emissions.

Nonetheless, there were a number of comments requesting that these regulations specifically exempt all areas presently above the national standards. The regulations promulgated below provide for this exemption only with respect to the area classification requirements. The preconstruction review is still applicable in all areas of the country, in order to ensure that new sources be examined for their impact in presently clean areas which may be adjacent to areas that are above the national standards. In addition, the requirements for applying best available control technology are also applicable to all sources subject to review in order to minimize the deterioration caused by individual sources. This requirement is particularly important where a source in one State would use up a significant portion of the air quality increment in a neighboring State.

The exemption of areas from the classification requirements will be done on a county basis (or functionally equivalent area) and will be based on a determination by the State that the air quality in the county is pervasively above the national standard. No attempt has been made to define these counties in these regulations. Instead, States must notify the Administrator by June 1, 1975, of those areas which are exempt from the classification requirements.

There were a number of comments requesting clarification of the relationship of these regulations to other portions of the existing implementation plans, particularly the air quality maintenance plans (AQMP's) to be submitted by June, 1975. An air quality maintenance area (AQMA) is an area designated by the Administrator that may have the potential for exceeding any national standard within the next 10-year period as a consequence of current air quality and/or the projected growth rate of the area. The States are required to submit an analysis of the impact on air quality of projected growth in each designated potential problem area. Where maintenance problems are identified by this analysis, the states must also submit plans containing measures to ensure maintenance of national standards during the ensuing 10-year period. AQMA's have been proposed for specific pollutants and final designations will be published shortly. Where an AQMA has been designated because of projected problems in maintaining the NAAQS for either TSP or SO_2 the significant deterioration increment is applicable only to those portions of the AQMA which are cleaner than either standard. By design AQMA boundaries have been designated to include substantial areas which are relatively clean. This has been done to insure that the planning area corresponds to the entire area where projected new growth in emissions is likely to occur and where regional planning for public services, housing and employment is focused.

Although there seemed to be a general assumption that AQMA's should be designated as Class III, there are several situations where a State may wish to leave the clean air portions of an AQMA as Class II or even to redesignate the area to a Class I. This would limit peripheral growth so as to complement the goals of the AQMP and in this context, the significant deterioration would actually be a mechanism for partially implementing the AQMP. In addition, there are several clean air areas which have been proposed as AQMA's due to anticipated large-scale development of natural resources. A Class I or Class II designation for such areas would probably eliminate the need for an AQMP for TSP or SO_2, since the air quality constraint would be the Class I or Class II increment. Therefore, a "de-designation" of the AQMA for TSP or

SO_2 may be appropriate. In any case, the Administrator recommends that any proposed significant deterioration redesignation have boundaries consistent with AQMA boundaries to facilitate the development of the AQMA plan.

A Class III designation does not necessarily mean that an AQMP would be required. For example, a clean air area might be designated Class III on the basis of a marginal anticipated deterioration in air quality which exceeds the Class II increments. However, the anticipated resulting air quality would still be well below the national standards. If little additional development were anticipated over the subsequent 10-year period so as to threaten the national standards, no AQMP would be required.

Furthermore, it is important to recognize that area classifications do not necessarily imply current air quality or current land use patterns. Instead, classifications should reflect the desired degree of change from current levels and patterns.

A number of public comments indicated concern that these regulations would create a duplication of new source review procedures, which would require a source owner to apply to several different governmental agencies before he could commence construction.

Where the State assumes responsibility for carrying out the new source review procedure under these regulations, most of the concerns expressed above should be eliminated. Procedurally and administratively, the significant deterioration review is virtually identical to existing new source review procedures included in the implementation plan and, in fact, application could probably be made on the same forms. No additional sources would be covered by the significant deterioration review. The only difference between the two new source reviews is in the tests which must be met before approval will be granted. Instead of meeting only the emission limitations which are part of the applicable plan, sources covered by the significant deterioration review must also meet an emission limitation which is consistent with the application of best available control technology. The most restrictive emission limitation supersedes all others. In addition to not causing a violation of any national standard, sources covered by the significant deterioration review must not cause an applicable air quality increment to be exceeded. Technically, the calculations needed to determine if these additional tests will be met are very similar to those already being done. Therefore, where a State administers these regulations, integration with the existing plan should be relatively easy, resulting in only minor additional resource demands. If States do not assume responsibility for implementing these regulations, EPA, through its Regional Offices, will carry out the new source review as required by the Act. Since this may cause duplication of effort on the part of EPA and the States, as well as additional requirements for source owners, the Administrator strongly urges States to accept delegation of these regulations or to develop their own regulations pursuant to the guidance to be issued shortly pursuant to Part 51 of this chapter.

In response to public comments, the Administrator is considering the addition of other source categories, such as asphalt concrete plants and ferro-alloy plants, to these regulations. One possibility is to add those sources for which new source performance standards for particulate matter and sulfur dioxide have been proposed or promulgated under Part 60 of this chapter. A proposal to add other source categories will be issued shortly.

One comment indicated confusion as to what functions the Administrator intended to delegate to States under these regulations. The confusion apparently related to the definition of "Administrator" under paragraph (b)(3) as including the Administrator's "designated representative." Although the term "Administrator" is used in paragraph (c), relating to the approval of State redesignation, the Administrator does not intend to designate to a representative outside the Agency the review and approval functions under this paragraph. As indicated in paragraph (f), the only functions which will be delegated to States will be the preconstruction review under paragraphs (d) and (e).

A question was raised as to whether an area could have one classification for SO_2 and another for TSP. Different classifications for SO_2 and TSP may make sense in certain situations, and the Administrator does not intend to preclude this option.

Several public comments requested that the technical procedures for determining the air quality impact of a new source be specified by EPA. The techniques the Agency intends to use in most cases are set forth in "Guidelines for Air Quality Maintenance Planning and Analysis," Vols. 10 and 12. Volume 10, "Reviewing New Stationary Sources," pertains to the air quality impact of individual sources, while Vol. 12, "Applying Atmospheric Simulation Models to Air Quality Maintenance Areas," will be used to determine the impact of other growth and development in the area affected by the source. These documents are available for inspection at EPA's Regional Offices and the EPA Freedom of Information Center, 401 M Street, SW., Washington, D.C. 20460, and will be available shortly for general distribution through the National Technical Information Service, 5258 Port Royal Road, Springfield, Virginia 22151. The Administrator, or States which will be implementing the preconstruction review as EPA's agent, is not required to use the techniques in these documents if other techniques are more appropriate in certain circumstances.

There was considerable divergence of opinion over the initial classification of all areas. Industrial groups generally supported an initial designation of Class III so as to minimize disruption of projects scheduled to commence construction in the near future. Environmental groups supported an initial designation of Class I, fearing that a Class II or III designation would permit air quality deterioration of some clean areas before States could act to redesignate areas to a more restrictive classification. The Administrator continues to feel that an initial Class II designation represents the most reasonable compromise between these widely differing positions. Also, since the regulations apply only to sources which commence construction after June 1, 1975, the Administrator feels that this deferral should reduce disruption to the industrial sector while permitting States sufficient time to consider reclassifying any area either to Class I or III before requests for approval must be acted upon.

There were several questions raised concerning the appropriate size of an area which should be considered for redesignation. Calculations have shown that because of the small air quality increments specified for Class I areas, these levels can be violated by a source located many miles inside an adjacent Class II or III area. For example, a power plant which just meets the Class II increment for SO_2 could under some conditions violate the Class I increment for SO_2 60 or more miles away. Under the regulations promulgated below, a source could not be allowed to construct if it would violate an air quality increment either in the area where the source is to be located or in any neighboring area in the State. Therefore, wherever a Class I area adjoins a Class II or III area, the potential growth restrictions, especially for power plant development, extends well beyond the Class I boundaries into the adjacent areas. A similar situation exists, to a greater or lesser degree, wherever areas of different classification adjoin each other. Therefore, the area with the less restrictive classification should include an additional area at the periphery where it is clearly recognized that development will be somewhat restricted due to the adjacent "cleaner" area. As a result, a Class I redesignation could be fairly limited in size, yet the adjoining Class II or Class III areas would need to cover a substantial area in order to fully utilize the Class II or III increment. Again, it should be clear that the Class II or III increment could only be fully utilized toward the center of the area and that at the periphery, allowable deterioration will be dictated by the adjoining Class I area rather than the Class II or III increment.

The distance a large source would need to be located away from a Class I boundary is more dependent on the meteorological conditions in the area rather than the size of the source. Where very long pollutant travel times from the source to the receptor are involved, the assumptions concerning the persistence of wind direction and atmospheric stability are critical. At some point, it can be assumed that a receptor will be virtually

unaffected by a source, regardless of the source strength, since the critical meteorological conditions would not be expected to persist long enough to move the pollutants from source to receptor for any significant period of time. This distance is, of course, dependent on local meteorological conditions, but for most areas the maximum distance would be 60 to 100 miles.

CHANGES TO THE REGULATIONS

1. *Definition of Modified Source.* The term "expanded source" was used in the proposal in place of the more commonly used term "modified source" in order to specifically exclude from the preconstruction review sources which increase emissions solely due to switching from a low sulfur to a higher sulfur content fuel. The proposed definition of expanded source was related to whether a source increased emissions through a "major capital expenditure." This phrase was criticized by many as being too vague. Therefore, the general term "modified source" has been reinstated, along with a specific exemption for fuel conversion, which exemption is applicable only to the significant deterioration review procedures. The general definition of modified source in Part 52 is changed slightly to be more specific and to be consistent with the definition used in Part 60. Changes to the definition of modification in Part 60 were proposed on October 15, 1974 (39 FR 36946) and comments on this proposal are presently being analyzed. It is the Administrator's intent to change the definition of modification under Part 52 to be consistent with the final definition of this term under Part 60.

These changes are not intended to modify the applicability of either the proposed significant deterioration regulations or other new source review procedures promulgated elsewhere in Part 52.

2. *Definition of best available control technology.* Since this term may be used elsewhere in Part 52 in the future, it has been defined in the general definitions section of Part 52. The definition is consistent with the wording used in the August 27 proposal. It should be noted that new source performance standards (NSPS) may only apply to certain affected facilities within a large source. For example, only basic oxygen process furnaces in a steel mill are presently covered by NSPS, while blast furnaces, scarfing operations and other significant sources within the mill are not presently covered. BACT must be determined for these facilities on a case-by-case basis until such time as NSPS are issued for these other facilities.

3. *Definition of baseline air quality concentration.* The proposal intended to establish the baseline air quality as that air quality existing as of the effective date of regulation, adjusted to include air resource commitments resulting from approval of other air pollution sources pursuant to existing new source review procedures in the plan. The definition of baseline air quality has been clarified to reflect this intent and the calculation has been simplified by specifying the use of 1974 air quality data rather than 1973 data. No substantive change is intended by this revision.

4. *Conditions for applying for redesignation of areas.* In order that the Administrator have an adequate basis for determining whether an application to redesignate an area should be approved or disapproved, a provision has been added to paragraph (c)(3)(ii) to require that the necessary information be a part of the hearing record on the proposed designation. Specifically, the hearing record must show that the social, environmental, and economic effects of the proposed redesignation have been evaluated for the area being reclassified as well as for adjacent areas and that regional and national interests have been considered. The Administrator will provide additional guidance to assist States in developing their redesignation proposals and analyzing the impact of such redesignations.

5. *State reclassification of Federal and Indian Lands.* Various public comments indicate that Federal lands should be subject to State jurisdiction. EPA did not intend to preclude State redesignations provided that the Federal Land Manager can elect to keep the air quality over Federal lands in a more pristine condition than the State might designate. Therefore, the regulations have been revised to subject Federal lands to State redesignations but reserve to the Federal Land Manager the authority to subject such lands to a more stringent designation. This approach is consistent with section 118 of the Clean Air Act (42 U.S.C. 1857f) which requires that Federal agencies having jurisdiction over any property or facility meet substantive State air pollution control standards and limitations. There is nothing in the Clean Air Act or the legislative history of that Act that indicates the Congress intended to preclude the Federal Government from meeting more restrictive standards than are imposed by the States. This provision also ensures that national forests and parks can be protected by the Federal Government from deterioration of air quality. The different treatment accorded lands of exclusive Federal jurisdiction has been eliminated since the revised regulations make it clear that the Federal Government can protect air quality over all Federal lands. In accordance with Executive Order 11752, these regulations do not require Federal facilities to comply with State or local administrative procedures with respect to pollution abatement and control. Review of new sources on Federal lands is reserved to EPA, except as State review is permitted by a Federal Land Manager with respect to activities conducted under Federal leases.

The State of New Mexico commented that the proposed regulations appeared to take authority away from the States to regulate air pollution over Indian lands. These regulations were not intended to alter the present legal relationships between the States and Indian Reservations within the States. As these relationships vary from State to State, EPA has not attempted to define such relationships but has modified the proposed regulations to clarify that there is no intent to alter these relationships. Where States have not assumed jurisdiction over Indian lands, the regulations provide that the Indian governing body may propose redesignations to the Administrator. Boundary problems between Indian and State lands are dealt with in the same way that boundary problems between two States are dealt with, as discussed below. This is consistent with the independent status of Indian lands not subject to State laws.

6. *Public comment on proposed redesignations.* In order to permit the public an opportunity to comment on whether a proposed redesignation should be approved or disapproved, the Administrator will publish all proposed redesignations in the FEDERAL REGISTER as proposed rulemaking and provide a least 30 days for submission of public comments.

7. *Preconstruction review and BACT in Class III areas.* Several public comments criticized the proposed regulations for exempting sources in Class III areas from preconstruction review. It was pointed out that there would be no procedure to prevent construction of a source in a Class III area which would violate an increment in an adjacent Class I or II area. Therefore, the regulations promulgated below require that new sources, wherever they are located, must be reviewed to determine the impact on air quality in adjacent regions.

In order to minimize the deterioration caused by individual sources, the proposal has been modified to make the BACT requirements applicable wherever the source is located, not just in Class I or II areas. Since a source located many miles away from a Class I area could easily use up the entire Class I increment, as discussed below, the necessity to minimize emissions as much as possible in all areas is particularly important.

8. *Determination of allowable air quality increment.* The provisions of paragraph (d)(2)(i) have been modified to be more specific and to specify that reduction of emissions from existing sources which contributed to the baseline air quality concentration should be accounted for in determining the unused portion of the allowed air quality increment.

9. *EPA review of state redesignations.* The proposed regulations did not adequately cover problems created when a State or Indian Governing Body wishes to designate one or more of its areas in such a way that it will have a negative impact on other States or Indian Reservations. These regulations provide that a State or Indian Governing Body must take into account the effect of proposed redesignations on other States, Indian Reservations, and regional and national

interests. Where no State or Indian Governing Body protests the redesignation of another State or Indian Reservation, the Administrator will only review the redesignation to determine whether it is arbitrary and capricious. However, where a State or Indian Governing Body protests a redesignation to the State proposing the redesignation and to the Administrator, the Administrator will take an expanded role of review in which he will balance the competing interests involved.

10. *Specification of emission limitation.* In order to ensure that the requirement for applying BACT is properly implemented, the provisions of paragraph (d)(2)(ii) have been modified to require that an emission limitation be established as a condition to approval. This places the emphasis on emissions rather than the presence of any particular control equipment. This change also makes the BACT requirement for sources not covered by NSPS more consistent with the NSPS requirements. However, if the Administrator determines that technological or economic limitations on the application of measurement methodology to a parlicular class of sources would make the imposition of an emission standard infeasible, he may instead prescribe a design or equipment standard requiring the application of best available control technology. Such standard shall to the degree possible set forth the emission reductions achievable by implementation of such design or equipment, and shall provide for compliance by means which achieve equivalent results.

11 *Responsibility for performing air quality impact analysis.* A number of public comments suggested that the reviewing agency analyze the air quality impact of additional growth that has occurred in the vicinity of the proposed source since the reviewing agency is more likely to have the necessary data which is needed. The Administrator has concluded that it would be more appropriate for the reviewing agency to perform the air quality impact analysis based on information submitted by the applicant. This change will eliminate the uncertainty which was expressed concerning the requirement that the applicant analyze the air quality impact of general growth and development "in the area affected by the proposed source," since the reviewing agency will define this area and perform the calculations required. Also the provisions of paragraph (d)(3) do not require the applicant to submit growth data with each application. However, the reviewing agency may request such data from the applicant in cases where it does not have the necessary information and will specify the area over which such information is required.

12. *Procedures for public participation.* The procedures specified in paragraph (e) for public comment on an application to construct have been modified to be consistent with the procedures contained in EPA's regulations for indirect source review (39 FR 25292). The changes allow the reviewing agency to require additional information, where necessary, and permit the applicant to respond to public comments involving his application to construct.

13. *Sources subject to review.* As proposed on August 27, several of the 19 source categories subject to the preconstruction review appeared to be restricted to an individual process (e.g. Kraft pulp mill recovery furnaces) rather than all emission points on the premises. The wording has been changed to be consistent with the listing of the other source categories and to make clear that all emission points associated with a stationary source must be considered in determining whether the source will violate an applicable air quality increment. This change allows sintering plants to be dropped from the list, since sintering operations will be covered under the primary metals industries which are subject to review under these regulations.

A detailed explanation of the technical and policy considerations which form the basis for these regulations is being prepared. Upon completion, the Administrator will publish a notice in the FEDERAL REGISTER announcing the availability of this information for public inspection.

These regulations will be effective January 6, 1975 and will be applicable to sources commencing construction on or after June 1, 1975.

(Secs. 110(c) and 301(a) of the Clean Air Act as amended [42 U.S.C. 1857 c-5(c) and 1857 g(a)])

Dated: November 27, 1974.

RUSSELL E. TRAIN,
Administrator.

Subpart A, Part 52, Chapter I, Title 40, Code of Federal Regulations, is amended as follows:

1. In § 52.01, paragraph (d) is revised and paragraph (f) is added. As amended § 52.01 reads as follows:

§ 52.01 Definitions.

* * * * *

(d) The phrases "modification" or "modified source" mean any physical change in, or change in the method of operation of, a stationary source which increases the emission rate of any pollutant for which a national standard has been promulgated under Part 50 of this chapter or which results in the emission of any such pollutant not previously emitted, except that:

(1) Routine maintenance, repair, and replacement shall not be considered a physical change, and

(2) The following shall not be considered a change in the method of operation:

(i) An increase in the production rate, if such increase does not exceed the operating design capacity of the source;

(ii) An increase in the hours of operation;

(iii) Use of an alternative fuel or raw material, if prior to the effective date of a paragraph in this Part which imposes conditions on or limits modifications, the source is designed to accommodate such alternative use.

* * * * *

(f) The term "best available control technology," as applied to any affected facility subject to Part 60 of this chapter, means any emission control device or technique which is capable of limiting emissions to the levels proposed or promulgated pursuant to Part 60 of this chapter. Where no standard of performance has been proposed or promulgated for a source or portion thereof under Part 60, best available control technology shall be determined on a case-by-case basis considering the following:

(1) The process, fuels, and raw material available and to be employed in the facility involved,

(2) The engineering aspects of the application of various types of control techniques which have been adequately demonstrated,

(3) Process and fuel changes,

(4) The respective costs of the application of all such control techniques, process changes, alternative fuels, etc.,

(5) Any applicable State and local emission limitations, and

(6) Locational and siting considerations.

2. Section 52.21 is revised by designating the first paragraph (a) and adding paragraphs (b), (c), (d), (e), and (f) to read as follows:

§ 52.21 Significant deterioration of air quality.

(a) *Plan disapproval.* Subsequent to May 31, 1972, the Administrator reviewed State implementation plans to determine whether or not the plans permit or prevent significant deterioration of air quality in any portion of any State where the existing air quality is better than one or more of the secondary standards. The review indicates that State plans generally do not contain regulations or procedures specifically addressed to this problem. Accordingly, all State plans are disapproved to the extent that such plans lack procedures or regulations for preventing significant deterioration of air quality in portions of States where air quality is better than the secondary standards. The disapproval applies to all States listed in Subparts B through DDD of this part. Nothing in this section shall invalidate or otherwise affect the obligations of States, emission sources, or other persons with respect to all portions of plans approved or promulgated under this part.

(b) *Definitions.* For purposes of this section:

(1) The phrase "baseline air quality concentration" refers to both sulfur dioxide and particulate matter and means the sum of ambient concentration levels existing during 1974 and those additional concentrations estimated to result from sources granted approval (pursuant to approved new source review procedures in the plan) for construction or modification but not yet operating prior to

January 1, 1975. These concentrations shall be established for all time periods covered by the increments set forth under paragraph (c)(2)(i) of this section, and may be measured or estimated. In the case of the maximum three-hour and twenty-four-hour concentrations, only the second highest concentrations should be considered.

(2) The phrase "Administrator" means the Administrator of the Environmental Protection Agency or his designated representative.

(3) The phrase "Federal Land Manager" means the head, or his designated representative, of any Department or Agency of the Federal Government which administers federally-owned land, including public domain lands.

(4) The phrase "Indian Reservation" means any federally-recognized reservation established by Treaty, Agreement, Executive Order, or Act of Congress.

(5) The phrase "Indian Governing Body" means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-government.

(6) "Construction" means fabrication, erection, or installation of an affected facility.

(7) "Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding agreement or contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

(c) *Area designation and deterioration increment.* (1) This paragraph applies to all States listed in Subpart B through DDD of this part, all lands owned by the Federal Government, and Indian Reservations, except those counties or other functionally equivalent areas that pervasively exceed any national ambient air quality standards for sulfur oxides or total suspended particulates and then only with respect to such pollutants. States shall notify the Administrator by June 1, 1975, of those areas which are above the national air quality standards and therefore are exempt from the requirements of this paragraph.

(2)(i) For purpose of this paragraph, areas designated as Class I or Class II shall be limited to the following increases in pollutant concentrations over the baseline air quality concentration:

Area designations

Pollutant	Class I (g/m)	Class II (g/m)
Particulate matter:		
Annual geometric mean	5	19
24-hr maximum	10	37
Sulfur dioxide:		
Annual arithmetic mean	2	15
24-hr maximum	5	100
3-hr maximum	25	700

(ii) For purposes of this paragraph, areas designated as Class III shall be limited to concentrations of particulate matter and sulfur dioxide no greater than the national ambient air quality standards.

(3)(i) All areas are designated Class II as of the effective date of this paragraph. Redesignation may be proposed by the respective States, Federal Land Managers, or Indian Governing Bodies, as provided below, subject to approval by the Administrator.

(ii) The State may submit to the Administrator a proposal to redesignate areas of the State Class I, Class II, or Class III, provided that:

(*a*) At least one public hearing is held in or near the area affected and this public hearing is held in accordance with procedures established in § 51.4 of this chapter, and

(*b*) Other States which may be affected by the proposed redesignation are notified at least 30 days prior to the public hearing, and

(*c*) A discussion of the reasons for the proposed redesignation is available for public inspection at least 30 days prior to the hearing and the notice announcing the hearing contains appropriate notification of the availability of such discussion, and

(*d*) The proposed redesignation is based on the record of the State's hearing, which must reflect the basis for the proposed redesignation, including consideration of (1) growth anticipated in the area, (2) the social, environmental, and economic effects of such redesignation upon the area being proposed for redesignation and upon other areas and States, and (3) any impacts of such proposed redesignation upon regional or national interests.

(iii) Except as provided in subdivision (iv) of this subparagraph, a State in which lands owned by the Federal Government are located may submit to the Administrator a proposal to redesignate such lands Class I, Class II, or Class III in accordance with subdivision (ii) of the subparagraph provided that:

(*a*) The redesignation is consistent with adjacent State and privately owned land, and

(*b*) Such redesignation is proposed after consultation with the Federal Land Manager.

(iv) Notwithstanding subdivision (iii) of this subparagraph, the Federal Land Manager may submit to the Administrator a proposal to redesignate any Federal lands to a more restrictive designation than would otherwise be applicable provided that:

(*a*) The Federal Land Manager follows procedures equivalent to those required of States under paragraph (c)(3)(ii) and,

(*b*) Such redesignation is proposed after consultation with the State(s) in which the Federal Land is located or which border the Federal land.

(v) Nothing in this section is intended to convey authority to the States over Indian Reservations where States have not assumed such authority under other laws nor is it intended to deny jurisdiction which States have assumed under other laws. Where a State has not assumed jurisdiction over an Indian Reservation the appropriate Indian Governing Body may submit to the Administrator a proposal to redesignate areas Class I, Class II, or Class III, provided that:

(*a*) The Indian Governing Body follows procedures equivalent to those required of States under paragraph (c)(3)(ii) and,

(*b*) Such redesignation is proposed after consultation with the State(s) in which the Indian Reservation is located or which border the Indian Reservation and, for those lands held in trust, with the approval of the Secretary of the Interior.

(vi) The Administrator shall approve, within 90 days, any redesignation proposed pursuant to this subparagraph as follows:

(*a*) Any redesignation proposed pursuant to subdivisions (ii) and (iii) of this subparagraph shall be approved unless the Administrator determines (*1*) that the requirements of subdivisions (ii) and (iii) of this subparagraph have not been complied with, (*2*) that the state has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3)(ii)(*d*) of this paragraph, (*3*) that the State has not requested delegation of responsibility for carrying out the new source review requirements of paragraphs (d) and (e) of this section.

(*b*) Any redesignation proposed pursuant to subdivision (iv) of this subparagraph shall be approved unless he determines (*1*) that the requirements of subdivision (iv) of this subparagraph have not been complied with, or (2) that the Federal Land Manager has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3)(ii)(*d*) of this paragraph.

(*c*) Any redesignation submitted pursuant to subdivision (v) of this subparagraph shall be approved unless he determines (*1*) that the requirements of subdivision (v) of this subparagraph have not been complied with, or (*2*) that the Indian Governing Body has arbitrarily and capriciously disregarded relevant considerations set forth in subparagraph (3)(ii)(*d*) of this paragraph.

(*d*) Any redesignation proposed pursuant to this paragraph shall be approved only after the Administrator has solicited written comments from affected Federal agencies and Indian Governing Bodies and from the public on the proposal.

(*e*) Any proposed redesignation protested to the proposing State, Indian Governing Body, or Federal Land Manager and to the Administrator by another State or Indian Governing Body because of the effects upon such protesting State or Indian Reservation shall be approved by the Administrator only if he determines that in his judgment the redesignation appropriately balances considerations of growth anticipated in the area proposed to be redesignated; the social, environmental and economic effects of such redesignation upon the

area being redesignated and upon other areas and States; and any impacts upon regional or national interests.

(vii) If the Administrator disapproves any proposed area designation under this subparagraph, the State, Federal Land Manager or Indian Governing Body, as appropriate, may resubmit the proposal after correcting the deficiencies noted by the Administrator or reconsidering any area designation determined by the Administrator to be arbitrary and capricious.

(d) *Review of new sources.* (1) This paragraph applies to any new or modified stationary source of a type identified below which will be located in any State listed in Subpart B through DDD of this part, which source has not commenced construction or expansion prior to June 1, 1975. A source which is modified, but does not increase the amount of a pollutant other than sulfur oxides or particulate matter, or is modified to utilize an alternative fuel, or higher sulfur content fuel shall not be subject to this paragraph.

(i) Fossil-Fuel Steam Electric Plants of more than 1000 million B.T.U. per hour heat input.

(ii) Coal Cleaning Plants.

(iii) Kraft Pulp Mills.

(iv) Portland Cement Plants.

(v) Primary Zinc Smelters.

(vi) Iron and Steel Mills.

(vii) Primary Aluminum Ore Reduction Plants.

(viii) Primary Copper Smelters.

(ix) Municipal Incinerators capable of charging more than 250 tons of refuse per 24 hour day.

(x) Sulfuric Acid Plants.

(xi) Petroleum Refineries.

(xii) Lime Plants.

(xiii) Phosphate Rock Processing Plants.

(xiv) By-Product Coke Oven Batteries.

(xv) Sulfur Recovery Plants.

(xvi) Carbon Black Plants (furnace process).

(xvii) Primary Lead Smelters.

(xviii) Fuel Conversion Plants.

(2) No owner or operator shall commence construction or modification of a source subject to this paragraph unless the Administrator determines that, on the basis of information submitted pursuant to subparagraph (3) of this paragraph:

(i) The effect on air quality concentration of the source or modified source, in conjunction with the effects of growth and reduction in emissions after January 1, 1975, of other sources in the area affected by the proposed source, will not violate the air quality increments applicable in the area where the source will be located nor the air quality increments applicable in any other areas. The analysis of emissions growth and reduction after January 1, 1975, or other sources in the areas affected by the proposed source shall include all new and modified sources granted approval to construct pursuant to this paragraph; reduction in emissions from existing sources which contributed to the baseline air quality; and general commercial, residential, industrial, and other sources of emissions growth not included in the definition of baseline air quality which has occurred since January 1, 1975.

(ii) The new or modified source will meet an emission limit, to be specified by the Administrator as a condition to approval, which represents that level of emission reduction which would be achieved by the application of best available control technology, as defined in § 52.01(f), for particulate matter and sulfur dioxide. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, he may instead prescribe a design or equipment standard requiring the application of best available control technology. Such standard shall to the degree possible set forth the emission reductions achievable by implementation of such design or equipment, and shall provide for compliance by means which achieve equivalent results.

(iii) With respect to modified sources, the requirements of subparagraph (2)(ii) of this paragraph shall be applicable only to the facility or facilities from which emissions are increased.

(3) In making the determinations required by subparagraph (2) of this paragraph, the Administrator shall, as a minimum, require the owner or operator of the source subject to this paragraph to submit: site information; plans, description, specifications, and drawings showing the design of the source; information necessary to determine the impact that the construction or modification will have on sulfur dioxide and particulate matter air quality levels; and any other information necessary to determine that best available control technology will be applied. Upon request of the Administrator, the owner or operator of the source shall also provide information on the nature and extent of general commercial, residential, industrial, and other growth which has occurred in the area affected by the source's emissions (such area to be specified by the Administrator) since the effective date of this paragraph.

(4) (i) Where a new or modified source is located on Federal lands, such source shall be subject to the procedures set forth in paragraphs (d) and (e) of this section. Such procedures shall be in addition to applicable procedures conducted by the Federal Land Manager for administration and protection of the affected Federal Lands. Where feasible, the Administrator will coordinate his review and hearings with the Federal Land Manager to avoid duplicate administrative procedures.

(ii) New or modified sources which are located on Indian Reservations shall be subject to procedures set forth in paragraphs (d) and (e) of this section. Such procedures shall be administered by the Administrator in cooperation with the Secretary of the Interior with respect to lands over which the State has not assumed jurisdiction under other laws.

(iii) Whenever any new or modified source is subject to action by a Federal agency which might necessitate preparation of an environmental impact statement pursuant to the National Environmental Policy Act (42 U.S.C. 4321), review by the Administrator conducted pursuant to this paragraph shall be coordinated with the broad environmental reviews under that Act, to the maximum feasible and reasonable.

(5) Where an owner or operator has applied for permission to construct or modify pursuant to this paragraph and the proposed source would be located in an area which has been proposed for redesignation to a more stringent class (or the State, Indian Governing Body, or Federal Land Manager has announced such consideration), approval shall not be granted until the Administrator has acted on the proposed redesignation.

(e) *Procedures for public participation.* (1) (i) Within 20 days after receipt of an application to construct, or any addition to such application, the Administrator shall advise the owner or operator of any deficiency in the information submitted in support of the application. In the event of such a deficiency, the date of receipt of the application for the purpose of paragraph (e) (1) (ii) of this section shall be the date on which all required information is received by the Administrator.

(ii) Within 30 days after receipt of a complete application, the Administrator shall;

(*a*) Make a preliminary determination whether the source should be approved, approved with conditions, or disapproved.

(*b*) Make available in at least one location in each region in which the proposed source would be constructed, a copy of all materials submitted by the owner or operator, a copy of the Administrator's preliminary determination and a copy or summary of other materials, if any, considered by the Administrator in making his preliminary determination; and

(*c*) Notify the public, by prominent advertisement in newspaper of general circulation in each region in which the proposed source would be constructed, of the opportunity for written public comment on the information submitted by the owner or operator and the Administrator's preliminary determination on the approvability of the source.

(iii) A copy of the notice required pursuant to this subparagraph shall be sent to the applicant and to officials and agencies having cognizance over the locations where the source will be situated as follows: State and local air pollution control agencies, the chief executive of the city and county; any comprehensive regional land use planning agency; and any State, Federal Land Manager or Indian Governing Body whose lands will be significantly affected by the source's emissions.

(iv) Public comments submitted in writing within 30 days after the date

such information is made available shall be considered by the Administrator in making his final decision on the application. No later than 10 days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Administrator shall consider the applicant's response in making his final decision. All comments shall be made available for public inspection in at least one location in the region in which the source would be located.

(v) The Administrator shall take final action on an application within 30 days after the close of the public comment period. The Administrator shall notify the applicant in writing of his approval, conditional approval, or denial of the application, and shall set forth his reasons for conditional approval or denial. Such notification shall be made available for public inspection in at least one location in the region in which the source would be located.

(vi) The Administrator may extend each of the time periods specified in paragraph (e)(1) (ii), (iv), or (v) of this section or such other period as agreed to by the applicant and the Administrator.

(2) Any owner or operator who constructs, modifies, or operates a stationary source not in accordance with the application, as approved and conditioned by the Administrator, or any owner or operator of a stationary source subject to this paragraph who commences construction or modification after June 1, 1975, without applying for and receiving approval hereunder, shall be subject to enforcement action under section 113 of the Act.

(3) Approval to construct or modify shall become invalid if construction or expansion is not commenced within 18 months after receipt of such approval or if construction is discontinued for a period of 18 months or more. The Administrator may extend such time period upon a satisfactory showing that an extension is justified.

(4) Approval to construct or modify shall not relieve any owner or operator of the responsibility to comply with the control strategy and all local, State, and Federal regulations which are part of the applicable State Implementation Plan.

(f) *Delegation of authority.* (1) The Administrator shall have the authority to delegate responsibility for implementing the procedures for conducting source review pursuant to paragraphs (d) and (e), in accordance with subparagraphs (2), (3), and (4) of this paragraph.

(2) Where the Administrator delegates the responsibility for implementing the procedures for conducting source review pursuant to this section to any Agency, other than a regional office of the Environmental Protection Agency, the following provisions shall apply:

(i) Where the agency designated is not an air pollution control agency, such agency shall consult with the appropriate State or local air pollution control agency prior to making any determination required by paragraph (d) of this section. Similarly, where the agency designated does not have continuing responsibilities for land use planning, such Agency shall consult with the appropriate State and local land use planning agency prior to making any determination required by paragraph (d) of this section.

(ii) A copy of the notice pursuant to paragraph (e)(1)(ii)(c) of this section shall be sent to the Administrator through the appropriate regional office.

(3) In accordance with Executive Order 11752, the Administrator's authority for implementing the procedures for conducting source review pursuant to this section shall not be delegated, other than to a regional office of the Environmental Protection Agency, for new or modified sources which are owned or operated by the Federal government or for new or modified sources located on Federal lands; except that, with respect to the latter category, where new or modified sources are constructed or operated on Federal lands pursuant to leasing or other Federal agreements, the Federal land Manager may at his discretion, to the extent permissible under applicable statutes and regulations, require the lessee or permittee to be subject to a designated State or local agency's procedures developed pursuant to paragraphs (d) and (e) of this section.

(4) The Administrator's authority for implementing the procedures for conducting source review pursuant to this section shall not be redelegated, other than to a regional office of the Environmental Protection Agency, for new or modified sources which are located on Indian reservations except where the State has assumed jurisdiction over such land under other laws, in which case the Administrator may delegate his authority to the States in accordance with subparagraphs (2), (3), and (4) of this paragraph.

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Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER C—AIR PROGRAMS

[FRL 402-8]

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Modification, Notification, and Reconstruction

On October 15, 1974 (39 FR 36946), under section 111 of the Clean Air Act, as amended (42 U.S.C. 1857), the Environmental Protection Agency (EPA) proposed amendments to the general provisions of 40 CFR Part 60. These amendments included additions and revisions to clarify the definition of the term "modification" appearing in the Act, to require notification of construction or potential modification, and to clarify when standards of performance are applicable to reconstructed sources. These regulations apply to all stationary sources constructed or modified after the proposal date of an applicable standard of performance.

Interested parties participated in the rulemaking by sending comments to EPA. Fifty-three comment letters were received, 43 of which came from industry, with the remainder coming from State and Federal agencies. Copies of the comment letters received and a summary of the comments with EPA's responses are available for public inspection and copying at the EPA Public Information Reference Unit, Room 2922 (EPA Library), 401 M Street SW., Washington, D.C. In addition, copies of the comment summary and Agency responses may be obtained upon written request from the EPA Public Information Center (PM-215), 401 M Street SW., Washington, D.C. 20460 (specify Public Comment Summary—Modification, Notification, and Reconstruction). The comments have been carefully considered, and where determined by the Administrator to be appropriate, changes have been made to the proposed regulations and are incorporated in the regulations promulgated herein. The most significant comments and the differences between the proposed and promulgated regulations are discussed below.

Terminology

Understandably there has been some confusion as to the difference between the various types of "sources" and "facilities" defined in § 60.2 of these regulations. Generally speaking, "sources" are entire plants, while "facilities" are identifiable pieces of process equipment or individual components which when taken together would comprise a source. "Affected facilities" are facilities subject to standards of performance, and are specifically identified in the first section of each subpart of Part 60. An "existing facility" is generally a piece of equipment or component of the same type as an affected facility, but which differs in that it was constructed prior to the date of proposal of an applicable standard of performance. This distinction is somewhat complicated because an existing facility which undergoes a modification within the meaning of the Act and these regulations becomes an affected facility. However, generally speaking, the distinction between "affected facilities" and "existing facilities" depends on the date of construction. The terms are intended to be the direct regulatory counterparts of the statutory definitions of "new source" and "existing source" appearing in section 111 of the Act.

"Designated facilities" form a subcategory of "existing facilities." A "designated facility" is an existing facility which emits a "designated pollutant," i.e., a pollutant which is neither a hazardous pollutant, as defined by section 112 of the Act, nor a pollutant subject to national ambient air quality standards. The term "designated facilities," however, has no special relevance to the issue of modification.

Definition of "Capital Expenditure"

Several commentators argued that the proposed definition of "capital expenditure," as applicable to the exemption for increasing the production rate of an existing facility in § 60.14(e)(2), was too vague. The regulations promulgated herein correct this deficiency by incorporating by reference and by requiring the application of the procedure contained in Internal Revenue Service Publication 534, which is available from any IRS office. The procedure set forth in IRS Publication 534 is relatively straightforward. First, the total cost of increasing the production or operating rate must be determined. All expenditures necessary to increasing the facility's operating rate must be included in this total. However, for purposes of § 60.14(e)(2) this amount must not be reduced by any "excluded additions," as defined in IRS Publication 534, as would be done for tax purposes. Next, the facility's basis (usually its cost), as defined by Section 1012 of the Internal Revenue Code, must be determined. If the product of the appropriate "annual asset guideline repair allowance percentage" tabulated in Publication 534 and the facility's basis exceeds the cost of increasing the operating rate, the change will not be treated as a modification. Conversely, if the cost of making the change is more than the above product and the emissions have increased, the change will be treated as a modification.

The advantage of adopting the procedure in IRS Publication 534 is that firm and precise guidance is provided as to what constitutes a capital expenditure. The procedure involves concepts and information which are available to all owners and operators and with which they are familiar, and it is the Administrator's opinion that it adequately responds to the complaints of vagueness made in comments.

Notification of Construction

The regulations promulgated herein contain a requirement that owners or operators notify EPA within 30 days of the commencement of construction of an affected facility. Some commentators, however, questioned the Agency's legal authority to require such a notification and questioned the need for such information.

Section 301(a) of the Act provides the Administrator authority to issue regulations "necessary to carry out his functions under [the] Act." The Agency has learned through experience with administering the new source performance standards that knowledge of the sources which may become subject to the standards is important to the effective implementation of section 111. This notification will not be used for approval or disapproval of the planned construction; the purpose is to allow the Administrator to locate sources which will be subject to the regulations appearing in this part, and to enable the Administrator to inform the sources about applicable regulations in an effort to minimize future problems. In the case of mass produced facilities, which are purchased by the ultimate user when construction is completed, the construction notification requirement will not apply. Notification prior to startup, however will still be required.

Use of Emission Factors

The proposed regulations listed emission factors as one possible method to be used in determining whether a facility has increased its emissions. Emission factors have two major advantages. First, they are inexpensive to use. Second, they may be applied prospectively, i.e., they can be used in some cases to determine whether a particular change *will* increase a facility's emissions before the change is implemented. This is important to owners or operators since they can thereby obtain advance notice of the consequences of proposed changes they are planning prior to commitment to a particular course of action. Emission factors do not, however, provide results as precise as other methods, such as actual stack testing. Nevertheless, in many cases the emission consequences of a proposed change can be reliably predicted by the use of emission factors. In such cases, where emissions will clearly increase or will clearly not increase, the Agency will rely primarily on emission factors. Only where the resulting change in emission rate is ambiguous, or where a dispute arises as to the result obtained by the use of emission factors, will other methods be used. Section 60.14(b) has been revised to reflect this policy.

The "Bubble Concept"

The phrase "bubble concept" has been used to refer to the trading off of emission increases from one facility undergoing a physical or operational change with emission reductions from another facility, in order to achieve no net increase in the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by the stationary source taken as a whole.

Several commentators suggested that the "bubble concept" be extended to cover "new construction." Under the proposed regulations, the "bubble concept" could be utilized to offset emission increases

from a facility undergoing a physical or operational change (as distinguished from a "new facility") at a lower economic cost than would arise if the facility undergoing the change were to be considered by EPA as being modified within the meaning of section 111 of the Act and consequently required to meet standards of performance. Under the suggested approach a new facility could be added to an existing source without having to meet otherwise applicable standards of performance, provided the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by the stationary source taken as a whole did not increase. If adopted, this suggestion could exempt most new construction at existing sources from having to comply with otherwise applicable standards of performance. Such an interpretation of the section 111 provisions of the Act would grant a significant and unfair economic advantage to owners or operators of existing sources replacing facilities with new construction as compared to someone wishing to construct an entirely new source.

If the bubble concept were extended to cover new construction, large sources of air pollution could avoid the application of new source performance standards indefinitely. Such sources could continually replace obsolete or worn out facilities with new facilities of the same type. If the same emission controls were adopted, no overall emission increase would result. In this manner, the source could continue indefinitely without ever being required to upgrade air pollution control systems to meet standards of performance for new facilities. The Administrator interprets section 111 to require that new producers of emissions be subject to the standards whether constructed at a new plant site or an existing one. Therefore, where a new facility is constructed, new source performance standards must be met. In situations involving physical or operational changes to an existing facility which increase emissions from that facility, greater flexibility is permitted to avoid the imposition of large control costs if the projected increase can be offset by controlling other plant facilities.

Several commentators argued that if the Administrator adopted the proposed interpretation of the term "modification", which would consider a modification to have occurred even if there was only a relatively minor detectable emission rate increase (thus requiring application of standards of performance), the Administrator would in effect prevent owners or operators from implementing physical or operational changes necessary to switch from gas and oil to coal in comport with the President's policy of reducing gas and oil consumption. The Administrator has concluded that if such situations exist, they will be relatively rare and, in any event, will be peculiar to the group of facilities covered by a particular standard of performance rather than to all facilities in general. Therefore, the Administrator has further concluded that it would be more appropriate to consider such circumstances and possible avenues of relief in connection with the promulgation of or amendment to particular standards of performance rather than through the amendment of the general provisions of 40 CFR Part 60.

Where the use of the bubble concept is elected by an owner or operator, some guarantee is necessary to insure that emissions do not subsequently increase above the level present before the physical or operational change in question. For example, reducing a facility's operating rate is a permissible means of offsetting emission increases from another facility undergoing a physical or operational change. If the exemption provided by § 60.14(e) (2) as promulgated herein were subsequently used to increase the first facility's operating rate back to the prior level, the intent of the Act would be circumvented and the compliance measures previously adopted would be nullified. Therefore, in those cases where utilization of the exemptions under § 60.14(e) (2), (3), or (4) as promulgated herein would effectively negate the compliance measures originally adopted, use of those exemptions will not be permitted.

One limitation placed on utilization of the "bubble concept" by the proposed regulation was that emission reductions could be credited only if achieved at an "existing" or "affected" facility. The purpose of this requirement was to limit the "bubble concept" to those facilities which could be source tested by EPA reference methods. One commentator pointed out that some facilities other than "existing" or "affected" facilities (i.e., facilities of the type for which no standards have been promulgated) lend themselves to accurate emission measurement. Therefore, § 60.14(d) has been revised to permit emission reductions to be credited from all facilities whose emissions can be measured by reference, equivalent, or alternative methods, as defined in § 60.2 (s), (t), and (u). In addition, when a facility which cannot be tested by any of these methods is permanently closed, the regulations have been revised to permit emission rate reductions from such closures to be used to offset emission rate increases if methods such as emission factors clearly show, to the Administrator's satisfaction that the reduction offsets any increase. The regulation does not allow facilities which cannot be tested by any of these methods to reduce their production as a means of reducing emissions to offset emission rate increases because establishing allowable emissions for such facilities and monitoring compliance to insure that the allowable emissions are not exceeded would be very difficult and even impossible in many cases.

Also, under the proposed regulations applicable to the "bubble concept," actual emission testing was the only permissible method for demonstrating that there has been no increase in the total emission rate of any pollutant to which a standard applies from all facilities within the stationary source. Several commentators correctly argued that if methods such as emission factors are sufficiently accurate to determine emission rates under other sections of the regulation (i.e. § 60.14(b)), they should be adequate for the purposes of utilization of the bubble concept. Thus, the regulations have been revised to permit the use of emission factors in those cases where it can be demonstrated to the Administrator's satisfaction that they will clearly show that total emissions will or will not increase. Where the Administrator is not convinced of the reliability of emission factors in a particular case, other methods will be required.

Ownership Change

The regulation has been amended by adding § 60.14(e) (6) which states that a change in ownership or relocating a source does not by itself bring a source under these modification regulations.

Reconstruction

Several commentators questioned the Agency's legal authority to propose standards of performance on reconstructed sources. Many commentators further believed that the Agency is attempting to delete the emission increase requirement from the definition of modification. The Agency's actual intent is to prevent circumvention of the law. Section 111 of the Act requires compliance with standards of performance in two cases, new construction and modification. The reconstruction provision is intended to apply where an existing facility's components are replaced to such an extent that it is technologically and economically feasible for the reconstructed facility to comply with the applicable standards of performance. In the case of an entirely new facility the proper time to apply the best adequately demonstrated control technology is when the facility is originally constructed. As explained in the preamble to the proposed regulation, the purpose of the reconstruction provision is to recognize that replacement of many of the components of a facility can be substantially equivalent to totally replacing it at the end of its useful life with a newly constructed affected facility. For existing facilities which substantially retain their character as existing facilities, application of best adequately demonstrated control technology is considered appropriate when any physical or operational change is made which causes an increase in emissions to the atmosphere (this is modification). Thus, the criteria for "reconstruction" are independent from the criteria for "modification."

Sections 60.14 and 60.15 set up the procedures and criteria to be used in making the determination to apply best adequately demonstrated control technology to existing facilities to which some changes have been made.

Under the proposed regulations, the replacement of a substantial portion of an existing facility's components constituted reconstruction. Many commentators questioned the meaning of "substantial portion." After considering the comments and the vagueness of this term, the Agency decided to revise the proposed reconstruction provisions to

better clarify to owners or operators what actions they must take and what action the Administrator will take. Section 60.15 of the regulations as revised specifies that reconstruction occurs upon replacement of components if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility and it is technologically and economically feasible for the facility after the replacements to comply with the applicable standards of performance. The 50 percent replacement criteria is designed merely to key the notification to the Administrator; it is not an independent basis for the Administrator's determination. The term "fixed capital cost" is defined as the capital needed to provide all the depreciable components and is intended to include such things as the costs of engineering, purchase, and installation of major process equipment, contractors' fees, instrumentation, auxiliary facilities, buildings, and structures. Costs associated with the purchase and installation of air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, etc.) are not considered in estimating the fixed capital cost of a comparable entirely new facility unless that control equipment is required as part of the process (e.g., product recovery).

The revised § 60.15 leaves the final determination with the Administrator as to when it is technologically and economically feasible to comply with the applicable standards of performance. Further clarification and definition is not possible because the spectrum of replacement projects that will take place in the future at existing facilities is so broad that it is not possible to be any more specific. Section 60.15 sets forth the criteria which the Administrator will use in making his determination. For example, if the estimated life of the facility after the replacements is significantly less than the estimated life of a new facility, the replacement may not be considered reconstruction. If the equipment being replaced does not emit or cause an emission of an air pollutant, it may be determined that controlling the components that do emit air pollutants is not reasonable considering cost, and standards of performance for new sources should not be applied. If there is insufficient space after the replacements at an existing facility to install the necessary air pollution control system to comply with the standards of performance, then reconstruction would not be determined to have occurred. Finally, the Administrator will consider all technical and economic limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

While § 60.15 expresses the basic Agency policy and interpretation regarding reconstruction, individual subparts may refine and delimit the concept as applied to individual categories of facilities.

RESPONSE TO REQUESTS FOR DETERMINATION

Section 60.5 has been revised to indicate that the Administrator will make a determination of whether an action by an owner or operator constitutes reconstruction within the meaning of § 60.15. Also, in response to a public comment, a new § 60.5(b) has been added to indicate the Administrator's intention to respond to requests for determinations within 30 days of receipt of the request.

STATISTICAL TEST

Appendix C of the regulation incorporates a statistical procedure for determining whether an emission increase has occurred. Several individuals commented on the procedure as proposed. After considering all these comments and conducting further study into the subject, the Administrator has determined that a statistical procedure is substantially superior to a method comparing average emissions, and that no other statistical procedure is clearly superior to the one adopted (Student's t test). A more detailed analysis of this issue can be found in EPA's responses to the comments mentioned previously.

Effective date. These regulations are effective on December 16, 1975. Since they represent a clarification of the Agency's existing enforcement policy, good cause is found for not delaying the effective date, as required by 5 U.S.C. 553(d)(3). However, the regulations will, in effect, apply retroactively to any enforcement activity now in progress since they do reflect present Agency policy.

(Sections 111, 114, and 301 of the Clean Air Act, as amended (42 U.S.C. 1857c-6, 1857c-9, and 1857g))

Dated: December 8, 1975.

RUSSELL E. TRAIN,
Administrator.

Part 60 of Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

1. The table of sections is amended by adding §§ 60.14 and 60.15 and Appendix C as follows:

Subpart A—General Provisions

* * * * *

Sec.
60.14 Modification.
60.15 Reconstruction.

* * * * *

Appendix C—Determination of Emission Rate Change.

2. In § 60.2, paragraphs (d) and (h) are revised and paragraphs (aa) and (bb) are added as follows:

§ 60.2 Definitions.

* * * * *

(d) "Stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant and which contains any one or combination of the following:

(1) Affected facilities.

(2) Existing facilities.

(3) Facilities of the type for which no standards have been promulgated in this part.

* * * * *

(h) "Modification" means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

* * * * *

(aa) "Existing facility" means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

(bb) "Capital expenditure" means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code.

3. Section 60.5 is revised to read as follows:

§ 60.5 Determination of construction or modification.

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

4. In § 60.7, paragraphs (a)(1) and (a)(2) are revised, and paragraphs (a)(3), (a)(4), and (e) are added as follows:

§ 60.7 Notification and recordkeeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:

(1) A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) A notification of the anticipated date of initial startup of an affected facility postmarked not more than 60 days nor less than 30 days prior to such date.

(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is spe-

cifically exempted under an applicable subpart or in § 60.14(e) and the exemption is not denied under § 60.14(d)(4). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

* * * * *

(c) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

5. Subpart A is amended by adding §§ 60.14 and 60.15 as follows:

§ 60.14 Modification.

(a) Except as provided under paragraphs (d), (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in Appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) A modification shall not be deemed to occur if an existing facility undergoes a physical or operational change where the owner or operator demonstrates to the Administrator's satisfaction (by any of the procedures prescribed under paragraph (b) of this section) that the total emission rate of any pollutant has not increased from all facilities within the stationary source to which appropriate reference, equivalent, or alternative methods, as defined in § 60.2 (s), (t) and (u), can be applied. An owner or operator may completely and permanently close any facility within a stationary source to prevent an increase in the total emission rate regardless of whether such reference, equivalent or alternative method can be applied, if the decrease in emission rate from such closure can be adequately determined by any of the procedures prescribed under paragraph (b) of this section. The owner or operator of the source shall have the burden of demonstrating compliance with this section.

(1) Such demonstration shall be in writing and shall include: (i) The name and address of the owner or operator.

(ii) The location of the stationary source.

(iii) A complete description of the existing facility undergoing the physical or operational change resulting in an increase in emission rate, any applicable control system, and the physical or operational change to such facility.

(iv) The emission rates into the atmosphere from the existing facility of each pollutant to which a standard applies determined before and after the physical or operational change takes place, to the extent such information is known or can be predicted.

(v) A complete description of each facility and the control systems, if any, for those facilities within the stationary source where the emission rate of each pollutant in question will be decreased to compensate for the increase in emission rate from the existing facility undergoing the physical or operational change.

(vi) The emission rates into the atmosphere of the pollutants in question from each facility described under paragraph (d)(1)(v) of this section both before and after the improvement or installation of any applicable control system or any physical or operational changes to such facilities to reduce emission rate.

(vii) A complete description of the procedures and methods used to determine the emission rates.

(2) Compliance with paragraph (d) of this section may be demonstrated by the methods listed in paragraph (b) of this section, where appropriate. Decreases in emissions resulting from requirements of a State implementation plan approved or promulgated under Part 52 of this chapter will not be acceptable. The required reduction in emission rate may be accomplished through the installation or improvement of a control system or through physical or operational changes to facilities including reducing the production of a facility or closing a facility.

(3) Emission rates established for the existing facility which is undergoing a physical or operational change resulting in an increase in the emission rate, and established for the facilities described under paragraph (d)(1)(v) of this section shall become the baseline for determining whether such facilities undergo a modification or are in compliance with standards.

(4) Any emission rate in excess of that rate established under paragraph (d)(3) of this section shall be a violation of these regulations except as otherwise provided in paragraph (e) of this section. However, any owner or operator electing to demonstrate compliance under this paragraph (d) must apply to the Administrator to obtain the use of any exemptions under paragraphs (e)(2), (e)(3), and (e)(4) of this section. The Administrator will grant such exemption only if, in his judgment, the compliance originally demonstrated under this paragraph will not be circumvented or nullified by the utilization of the exemption.

(5) The Administrator may require the use of continuous monitoring devices and compliance with necessary reporting procedures for each facility described in paragraph (d)(1)(iii) and (d)(1)(v) of this section.

(e) The following shall not, by themselves, be considered modifications under this part:

(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and § 60.15.

(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on the stationary source containing that facility.

(3) An increase in the hours of operation.

(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by § 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction

specifications, as amended, prior to the change. Conversion to coal required for energy considerations, as specified in section 119(d)(5) of the Act, shall not be considered a modification.

(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

(6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraphs (a) or (d) of this section, compliance with all applicable standards must be achieved.

§ 60.15 Reconstruction.

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(1) Name and address of the owner or operator.

(2) The location of the existing facility.

(3) A brief description of the existing facility and the components which are to be replaced.

(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(6) The estimated life of the existing facility after the replacements.

(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

(3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and

(4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

6. Part 60 is amended by adding Appendix C as follows:

APPENDIX C—DETERMINATION OF EMISSION RATE CHANGE

1. *Introduction.*

1.1 The following method shall be used to determine whether a physical or operational change to an existing facility resulted in an increase in the emission rate to the atmosphere. The method used is the Student's *t* test, commonly used to make inferences from small samples.

2. *Data.*

2.1 Each emission test shall consist of *n* runs (usually three) which produce *n* emission rates. Thus two sets of emission rates are generated, one before and one after the change, the two sets being of equal size.

2.2 When using manual emission tests, except as provided in § 60.8(b) of this part, the reference methods of Appendix A to this part shall be used in accordance with the procedures specified in the applicable subpart both before and after the change to obtain the data.

2.3 When using continuous monitors, the facility shall be operated as if a manual emission test were being performed. Valid data using the averaging time which would be required if a manual emission test were being conducted shall be used.

3. *Procedure.*

3.1 Subscripts a and b denote prechange and postchange respectively.

3.2 Calculate the arithmetic mean emission rate, $\bar{E}$, for each set of data using Equation 1.

$$\bar{E}=\frac{\sum_{i=1}^{n} E_i}{n}=\frac{E_1+E_2 \ldots +E_n}{n} \quad (1)$$

where:

E_i = Emission rate for the i th run.

n = number of runs

3.3 Calculate the sample variance, S^2, for each set of data using Equation 2.

$$S^2=\frac{\sum_{i=1}^{n}(E_i-\bar{E})^2}{n-1}=\frac{\sum_{i=1}^{n}E_i^2-\left(\sum_{i=1}^{n}E_i\right)^2/n}{n-1} \quad (2)$$

3.4 Calculate the pooled estimate, S_p, using Equation 3.

$$S_p=\left[\frac{(n_a-1)\,S_a^2+(n_b-1)\,S_b^2}{n_a+n_b-2}\right]^{1/2} \quad (3)$$

3.5 Calculate the test statistic, t, using Equation 4.

$$t=\frac{\bar{E}_b-\bar{E}_a}{S_p\left[\frac{1}{n_a}+\frac{1}{n_b}\right]^{1/2}} \quad (4)$$

4. *Results.*

4.1 If $\bar{E}_b>\bar{E}_a$ and $t>t'$, where t' is the critical value of t obtained from Table 1, then with 95% confidence the difference between $\bar{E}_b$ and $\bar{E}_a$ is significant, and an increase in emission rate to the atmosphere has occurred.

TABLE 1

Degree of freedom (n_a+n_b-2):	t' (95 percent confidence level)
2	2.920
3	2.353
4	2.132
5	2.015
6	1.943
7	1.895
8	1.860

For greater than 8 degrees of freedom, see any standard statistical handbook or text.

5.1 Assume the two performance tests produced the following set of data:

Test a:	Test b
Run 1. 100	115
Run 2. 95	120
Run 3. 110	125

5.2 Using Equation 1—

$$\bar{E}_a=\frac{100+95+110}{3}=102$$

$$\bar{E}_b=\frac{115+120+125}{3}=120$$

5.3 Using Equation 2—

$$S_a^2=\frac{(100-102)^2+(95-102)^2+(110-102)^2}{3-1}=58.5$$

$$S_b^2=\frac{(115-120)^2+(120-120)^2+(125-120)^2}{3-1}=25$$

5.4 Using Equation 3—

$$S_p=\left[\frac{(3-1)\,(58.5)+(3-1)\,(25)}{3+3-2}\right]^{1/2}=6.46$$

5.5 Using Equation 4—

$$t=\frac{120-102}{6.46\left[\frac{1}{3}+\frac{1}{3}\right]^{1/2}}=3.412$$

5.6 Since $(n_1+n_2-2)=4$, $t'=2.132$ (from Table 1). Thus since $t>t'$ the difference in the values of $\bar{E}_a$ and $\bar{E}_b$ is significant, and there has been an increase in emission rate to the atmosphere.

6. *Continuous Monitoring Data.*

6.1 Hourly averages from continuous monitoring devices, where available, should be used as data points and the above procedure followed.

(Secs. 111 and 114 of the Clean Air Act, as amended by sec. 4(n) of Pub. L. 91-604, 84 Stat. 1678 (42 U.S.C. 1857c-6, 1857c-9))

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DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

AIR POLLUTION

CONTROL

(By authority conferred on the director of the department of environmental quality by sections 5503 and 5512 of 1994 PA 451, MCL 324.5503 and MCL 324.5512, and Executive Reorganization Order Numbers 1995-16, MCL 324.99903, 2009-31, MCL 324.99919, and 2011-1, MCL 324.99921)

PART 9. EMISSION LIMITATIONS AND PROHIBITIONS—MISCELLANEOUS

R 336.1901 Air contaminant or water vapor; when prohibited.

Rule 901. Notwithstanding the provisions of any other department rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contami-nants, either of the following:

(a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.

(b) Unreasonable interference with the comfortable enjoyment of life and property.

History: 1980 AACS; 2002 AACS.

R 336.1902 Adoption of standards by reference.

Rule 902. The following standards are adopted in these rules by reference and are available as noted. Copies are available for inspection and purchase at the Air Quality Division, Department of Environmental Quality, 525 West Allegan Street, P.O. Box 30260, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of these rules (AQD price). Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office, 732 North Capitol Street, NW, Washington, DC 20401, by calling 1-866-512-1800, or by accessing their online bookstore at http://bookstore.gpo.gov at a cost as of the time of adoption of these rules (GPO price). The standards can be viewed and/or printed free of charge at http://ecfr.gpoaccess.gov.

(a) Title 40 C.F.R., part 51, appendix Y, "Guidelines for BART Determinations Under the Regional Haze Rule," and 40 C.F.R. §51.301, "Definitions," (2011); AQD price $61.00/$51.00 GPO price for parts 50-51.

(b) Title 40 C.F.R., part 61, subpart M, "National Emission Standards for Asbestos" (2011); AQD price $61.00/$51.00 GPO price for parts 61-62.

(c) Title 40 C.F.R., part 63, subpart A, "General Provisions" (2011); AQD price $74.00/$64.00 GPO price for part 63 (63.1-63.599).

(d) Title 40 C.F.R., part 63, subpart N, "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium

Pages 2-13 Removed

R 336.1947 Emission standards for site remediation; adoption by reference.

Rule 947. The provisions of 40 C.F.R., part 63, subpart GGGGG, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of 40 C.F.R., part 63, subpart GGGGG, entitled "National Emission Standards for Hazardous Air Pollutants: Site Remediation," shall comply with those provisions.

History: 2008 AACS.

R 336.1948 Emission standards for electric arc furnace steelmaking facilities; adoption by reference.

Rule 948. The provisions of 40 C. F. R., part 63, subpart YYYYY, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of 40 C.F.R., part 63, subpart YYYYY, entitled "National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities," shall comply with those provisions.

History: 2013 AACS.

R 336.1949 Emissions standards for iron and steel foundry area sources; adoption by reference.

Rule 949. The provisions of 40 C.F.R., part 63, subpart ZZZZZ, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of 40 C.F.R., part 63, subpart ZZZZZ, entitled "National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources," shall comply with those provisions.

History: 2013 AACS.

R 336.1950 Emissions standards for aluminum, copper, and other nonferrous foundry area sources; adoption by reference.

Rule 950. The provisions of 40 C.F.R., part 63, subpart ZZZZZZ, are adopted by reference in R 336.1902. The owner or operator of a facility subject to the provisions of 40 C.F.R., part 63, subpart ZZZZZZ, entitled "National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries," shall comply with those provisions.

History: 2013 AACS.

R 336.1970 Best available retrofit technology; adoption by reference.

Rule 970. (1) The provisions of 40 C.F.R., part 51, appendix Y, "Guidelines for BART Determinations Under the Regional Haze Rule," and 40 C.F.R. §51.301, "Definitions," are adopted by reference in R 336.1902.

History: 2008 AACS.

R 336.1971 Best available retrofit technology or BART program. Rule 971. (1) The department shall determine applicability of best available retrofit technology based on the provisions referenced in R 336.1970.

(2) The owner or operator of a unit subject to BART shall perform an engineering analysis as described in the provisions referenced in R 336.1970 and shall provide the results of the analysis to the department within 60 days of the effective date of R 336.1970 and R 336.1971.

(3) If an electric generating unit (EGU) subject to BART is subject to the trading programs of the Clean Air Interstate Rule under 40 C.F.R. part 97, the owner or operator of the EGU is not required to conduct a BART analysis for sulfur dioxide and oxides of nitrogen emissions under this rule.

(4) An engineering analysis required by subrule (2) of this rule shall be submitted to the department and shall be subject to review and approval by the department. If the department determines additional information is required, the department shall provide to the owner or operator additional information requests and comments in writing. The owner or operator shall provide the requested information within 60 days from receipt of written requests and comments from the department. The department may determine that more than 60 days will be allowed.

(5) The department shall determine the BART level of control for each unit subject to BART based on the engineering analysis referenced in subrule (2) of this rule, the provisions referenced in R 336.1970, and other information which the department determines to be relevant.

(6) The owner or operator of a unit subject to BART shall enter into a permit to install or consent order with the department to make the BART provisions legally enforceable within 90 days of the department's approval of the engineering analysis, unless the department determines that more than 90 days will be allowed. BART controls shall be in place and operating not later than December 31, 2012.

(7) An owner or operator subject to this rule shall measure oxides of nitrogen and sulfur dioxide emissions with 1 or more of the following:

(a) A continuous emission monitoring system.

(b) An alternate method as described in 40 C.F.R. part 60 or 75, adopted by reference in R 336.1802a, as applicable and acceptable to the department.

(c) A method currently in use or a future method developed for use and acceptable to the department, including methods contained in existing permit conditions.

(8) An owner or operator of an emission unit that measures oxides of nitrogen or sulfur dioxide emissions by a continuous emission monitoring system shall do either of the following:

(a) Use procedures set forth in 40 C.F.R., part 60, subpart A and appendix B, and comply with the quality assurance procedures in appendix F, adopted by reference in R 336.1802a as applicable and acceptable to the department.

(b) Use procedures set forth in 40 C.F.R., part 75, and associated appendices, adopted by reference in R 336.1802a, as applicable and acceptable to the department.

(9) An owner or operator of an emission unit who uses a continuous emission monitoring system to demonstrate compliance with this rule and who has already installed a continuous emission monitoring system for oxides of nitrogen or sulfur

dioxide pursuant to other applicable federal, state, or local rules shall meet the installation, testing, operation, quality assurance, and reporting requirements specified by the department.

(10) An owner or operator of an emission unit that is subject to this rule and has a permit or consent order issued under R 336.1971(4) shall submit at a minimum semiannual summary reports, in an acceptable format, to the department by March 15 for the reporting period July 1 to December 31 and September 15 for the reporting period January 1 to June 30 of each calendar year. The reports shall include all of the following information:

(a) The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit or utility system.

(b) If emissions or emission rates exceed the emissions or emission rates allowed by the applicable emission limit, the cause, if known, and any corrective action taken.

(c) The total operating time of the emission unit during the time period.

(d) For continuous emission monitoring systems, system performance information shall include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information shall be stated in the report.

(11) Quarterly summary reports, if required by the department pursuant to R 336.1213, shall be submitted within 30 days following the end of the calendar quarter and may be used in place of the semi-annual reports required pursuant to subrule (9) of this rule.

History: 2008 AACS.