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76560-50

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 52, and 60

[FRL 4137-7]

REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS; APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS; STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final Rule.

SUMMARY: The applicability of the new source requirements of title I of the Clean Air Act (CAA) to physical or operational changes at electric utility generating units is an issue of considerable interest at this time because of the recent passage of the 1990 CAA Amendments (1990 Amendments). Many utilities will be undertaking major pollution control projects at their units in the next few years. In enacting title IV, Congress did not suspend any title I requirements for this work. However, the massive industry-wide undertakings of pollution control projects warrants a clarification of the new source review (NSR) requirements of title I. In particular, NSR provisions should not inadvertently bias a utility towards or against any means of complying with the acid rain provisions. The EPA believes the amendments adopted today and the clarification of its current policy under its present NSR regulations provide adequate assurances that utilities can undertake title IV pollution control projects without uncertainty as to the applicability of the various title I new source requirements. At the same time, the applicability of existing new source regulations to modifications has been the source of two recent Federal appellate decisions, Wisconsin Electric Power Co. v. Reilly, (WEPCO), 893 F.2d 901 (7th Cir. 1990), and Puerto Rican Cement Co. v. EPA, 889 F.2d 292 (1st Cir. 1989). As a

result, EPA is today adopting clarifying amendments to these regulations that confirm policies regarding some of these provisions as they apply to utility projects.

The EPA today adopts a broad NSR exclusion for utility pollution control projects, adhering to its policy that new source regulations already generally exclude coverage of pollution control projects undertaken at electric utility units. Similarly, EPA is today adopting an "actual to future actual" methodology for determining whether all other nonroutine physical or operational changes at utilities (other than the replacement of a unit or addition of a new unit) are subject to NSR under either prevention of significant deterioration (PSD) or nonattainment provisions.

For those utility projects which undergo PSD NSR, EPA proposed a presumption that for EPA-issued permits, "low-NOx burners" can satisfy the best available control technology (BACT) requirements. The EPA has determined not to adopt this presumption.

In addition, EPA is also modifying its regulations implementing the modification provisions of the title I new source performance standards (NSPS) program to provide that a utility may use for its pre-change baseline the highest hourly emissions rate achievable at any time during the 5 years prior to the physical or operational change. In addition, EPA is modifying its regulations to reflect changes made by Congress in the 1990 Amendments to the applicability of new source requirements to clean coal technology (CCT) and repowering projects, and to "very clean" units.

DATES: This rule takes effect on (insert date of publication FEDERAL REGISTER). Under § 307(b)(1) of the CAA, petitions for judicial review must be filed on or before (60 days after the date of publication) in the U.S. Court of Appeals for the D.C. Circuit.

ADDRESSES: Material relevant to this rulemaking may be found in Public Docket A-90-06. This docket is located in U.S. EPA's Central Docket Section (LE-131), Waterside Mall, M-1500, 401 M Street SW, Washington, D.C. 20460. The docket may be inspected between 8:00 a.m. and 3:00 p.m. on weekdays and a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. David A. Solomon at (919) 541-5375 or Mr. Larry Elmore at (919) 541-5433, New Source Review Section (MD-15), Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION:
The following outline reflects the organization of today's notice:

I. Introduction.

The EPA today amends its regulations implementing the various title I new source requirements governing physical or operational changes at electric utility steam generating units. Specifically, these changes are being issued to clarify the coverage of the NSPS, PSD and nonattainment preconstruction review requirements of title I of the CAA to

projects undertaken at electric utility steam generating units.

The EPA today amends the definition of "major modification" in 40 CFR parts 51 and 52 to set forth the conditions under which the addition, replacement or use at existing electric utility generating units of any system or device whose primary function is the reduction of air pollutants (including the switching to a less polluting fuel where the primary purpose of the switch is the reduction of air pollutants) will or will not subject the source to preconstruction review. Specifically, EPA is adopting in PSD and nonattainment areas a regulatory exclusion explicating its authority under the statutory definition of "modification" and confirming EPA's current practice that pollution control projects which "do not render the unit less environmentally beneficial" are not "physical or operational changes," and hence, are not "modifications" for the purposes of parts C and D of title I and are not "major modifications" for the purposes of EPA's regulations implementing those provisions. The EPA is today also amending its PSD and nonattainment NSR regulations (40 CFR parts 51 and 52) as they apply to utilities to (1) clarify the NSR baseline for determining whether a proposed physical or operational change will subject a utility to the preconstruction review requirements of these provisions; (2) set forth an actual-to-future-actual methodology for determining whether a physical or operational change is subject to NSR; (3) provide further clarification of the existing regulatory requirement that only those increases in emissions that actually result from the physical change or change in the method of operation can be considered in determining whether the proposed change subjects the utility to NSR requirements; and (4) implement §§ 409 and 415 of title IV of the 1990 Amendments which create special NSPS treatment for certain repowering projects and limited NSR exemptions for temporary and permanent CCT projects, and for certain "very clean" units. Finally, EPA is also amending its NSPS regulations (40 CFR part 60) to allow a utility to use as its pre-change baseline its highest hourly emissions rate achievable during the 5 years prior to the proposed physical or operational change.

Today's rule addressing pollution control projects and other non-routine physical and operational changes at electric utility units is timely for several reasons. First, the 1990 Amendments establish, in title IV, a new

control scheme for addressing the acid rain problem which focuses exclusively and immediately on utility power plants. title IV will force most electric utility steam generating units to undertake pollution control projects and provides full flexibility to achieve compliance without a bias towards or against any particular pollution control method. Second, the Agency believes its extensive experience with other non-routine physical and operational changes at such units and the unique characteristics of the electric utility industry (e.g., the general similarity of equipment within the category and the extent of publicly available information) support a revision to the NSR applicability criteria for this source category. Further, while Congress did not make significant changes in the NSR and NSPS statutory language in 1990, the conference committee provided the following guidance to EPA in its Joint Explanatory Statement:

> "[T]he deletion of most provisions relating to the WEPCO decision is not intended to affect or prejudice in any way the issues or resolution of the WEPCO matter. At the same time, the conferees urge a quick resolution of the WEPCO matter by EPA as appropriate."

Conference Comm., Joint Explanatory Statement of the Committee of the Conference to Accompany S. 1630, Rep. 101-952, 101st. Cong., 2nd Sess. (1990) pp. 344-45. In passing title IV, Congress did not suspend any requirements of title I. However title I and title IV are clearly intended to work in concert, not conflict, and today's ruling is intended to ensure that harmony.

In taking the actions announced today, EPA has relied on the written comments provided to the docket in this matter as well as testimony provided at a public hearing on the proposed rule conducted by EPA on July 14, 1991.

The public comment period, originally scheduled to close on August 19, 1991, was extended until September 18, 1991 (56 FR 40843, August 16, 1991) to receive additional comments. The comment period was later reopened on November 25, 1991 (see 56 FR 59238) for 2 weeks to receive comments on the information contained in the transcript of a congressional hearing conducted by the Subcommittee on Health and the Environment of the House Committee on Energy and Commerce on July 22, 1991, and other related information. In response to several requests to extend the

comment period, the comment period was extended for an additional 7 days, making the final deadline for comments December 17, 1991 (see 56 FR 65203).

II. Background

A. The New Source Performance Standards, Prevention of Significant Deterioration and Nonattainment Programs of Title I

Title I of the CAA has three programs specifically designed to ensure that no new air pollution -- whether from new sources or from modifications to existing sources -- can be emitted unless the source complies with new source requirements.

The 1970 CAA required EPA to promulgate technology-based NSPS applicable to the construction or modification of stationary sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare [see CAA § 111(b)(1)(A), 42 U.S.C. 7411(b)(1)(A)]. The NSPS provisions were "designed to prevent new air pollution problems" by regulating newly-constructed sources and changes occurring at existing sources that result in emissions increases (see National Asphalt Pavement Assoc. v. Train, 539 F.2d 775, 783 (D.C. Cir. 1976); see also H.R. Rep. No. 1146, 91st Cong., 2d Sess. 3, reprinted in 1970 U.S. Code Cong. & Admin. News 5356, 5358). Congress defined the term "modification" as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted" [see CAA § 111(a)(4), 42 U.S.C. 7411(a)(4)].

In 1977, Congress adopted additional amendments to the CAA. These changes included preconstruction permitting requirements for major new and modified sources under two programs, prevention of significant deterioration (PSD) and nonattainment NSR (respectively, parts C and D of the CAA). Congress intended these programs to apply generally where industrial changes might increase pollution in an area. Alabama Power Co. v. Costle, 636 F.2d 323, 400 (D.C. Cir. 1979). Congress incorporated in parts C and D the same definition of the term "modification" set forth in the NSPS provisions [see CAA § 111(a)(4), 169(2)(C), and 171(4)].

The NSR program for PSD (CAA §§ 160-169) applies in attainment areas, i.e., those areas which have attained the

national ambient air quality standards (NAAQS). To receive a PSD permit, a prospective major new source or major modification must (among other things) show that (1) it will not cause or contribute to a violation of the available air quality "increment" (designed to prevent ambient air quality from deteriorating by more than certain specified levels), (2) it will not cause or contribute to a violation of a NAAQS, and (3) it will use the "BACT," which must be at least as stringent as any applicable NSPS or hazardous pollutant standard under § 112 of the CAA.

Part D of the 1977 Amendments applies to nonattainment areas, i.e., those areas which have not met the NAAQS under § 109. To receive a permit in such areas, major new and modified sources must (among other things) (1) obtain emissions offsets, thereby assuring that reasonable progress toward attainment of the NAAQS will occur, and (2) comply with the "lowest achievable emission rate (LAER)" (see CAA § 171-173).

B. The Two-Step Test for Modifications

The modification provisions of the NSPS and NSR programs are based on the broad NSPS definition of "modification" in § 111(a)(4) of the CAA. That section contemplates a two-step test for determining whether activities at an existing facility constitute a modification subject to new source requirements. In the first step, which is largely the same for NSPS and NSR, the reviewing authority determines whether a physical or operational change will occur. If so, the reviewing authority proceeds in the second step to determine whether the physical or operational change will result in an emissions increase over baseline levels. In this second step, the applicable rules branch apart, reflecting the fundamental distinctions between the technology-based provisions of NSPS and the air quality-based provisions of NSR.

Briefly, the NSPS program examines maximum hourly emissions rates, expressed in kilograms per hour. Emissions increases for NSPS purposes are determined by changes in the hourly emissions rates at maximum physical capacity. On the other hand, the NSR regulations examine total emissions to the atmosphere. For applicability determination purposes, emissions increases under NSR are determined by changes in annual emissions as expressed in tons per year (tpy).

C. Step One: Physical or Operational Change

The EPA has always recognized that the definition of physical or operational change in § 111(a)(4) could, standing alone, encompass the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a change in the way that pipe is utilized). However, EPA has always recognized that Congress obviously did not intend to make every activity at a source subject to new source requirements.

As a result, EPA has defined "modification" in the NSPS and NSR regulations to include common-sense exclusions from the "physical or operational change" component of the definition. For example, both sets of regulations contain similar exclusions for routine maintenance, repair, and replacement; for increases in the hours of operation or in the production rate; and for certain types of fuel switches [see e.g., 40 CFR 52.21(b)(2)(iii) and 60.14(e)]. In addition, with respect to pollution control equipment, the NSPS regulations contain an exclusion for:

> The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emissions control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

40 CFR 60.14(e)(5). As will be discussed, in recent individual applicability determinations EPA has excluded pollution control projects from NSR following a similar "environmentally beneficial" test.

D. Step Two: Emissions Increases for NSPS Applicability

The EPA's NSPS regulations define the term "modification" as 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" (see 40 CFR 60.2 and 60.14). Under current NSPS regulations, emissions increases, for applicability purposes, are calculated by comparing the hourly emission rate, at maximum physical capacity, before and after the physical or operational change. That is, to determine whether a change to an existing facility will increase the emissions rate, the existing NSPS regulations authorize the use of an "emissions factor analysis," or a materials balance, continuous monitoring, or manual

emissions test to evaluate emissions before and after the change [see 40 CFR 60.14(b)(2)].

Absent the exclusions from modifications specified at 40 CFR 60.14(e), any increase in emissions to the atmosphere over the previous emissions rate will subject the unit to NSPS [see 40 CFR 60.14(a) and (b)]. In addition, under the "reconstruction rules," physical or operational changes which would cost 50 percent or more of the total cost of a comparable new facility may be classified as reconstructions (see 40 CFR 60.15) and are subject to NSPS as a new source, even if there is no emissions increase.

E. Step Two: Emissions Increases Under NSR Requirements

1. Existing Regulations

The EPA's regulations implementing the PSD and nonattainment programs require preconstruction review for sources undertaking a "major modification," i.e., a physical change or change in the method of operations "that would result in a significant net emissions increase of any pollutant subject to regulation under the CAA" [see 40 CFR 52.21(b)(2)(i), 52.24(f)(5)]. A "net emissions increase" is defined as the increase in "actual emissions" from the particular physical or operational change together with any other "contemporaneous" increases or decreases in actual emissions [see 40 CFR 52.21(b)(3)(i)].

Applicability of the CAA's NSR provisions must be determined in advance of construction and is pollutant specific. In cases involving existing sources, this requires a pollutant-by-pollutant projection of the emissions increases, if any, that will result from the physical or operational change. Specifically, to determine whether a proposed physical or operational change will result in an emissions increase, the source must first determine a baseline level of actual emissions. The regulations define actual emissions on a particular date as "the average rate, in tpy, at which the unit actually emitted the pollutant during a 2-year period which precedes the particular date and which is representative of normal source operation" [see 40 CFR 52.21(b)(21)(ii)]. The Administrator "shall" allow use of a different time period "upon a determination that it is more representative of normal source operation." Id. The EPA has typically used the 2 years immediately preceding the physical or operational change to establish the baseline [see 45 FR 52676, 52705, 52718 (1980)]. However, it can allow

the use of an earlier 2-year period that is more representative of normal source operations. For example, in WEPCO, EPA found the fourth and fifth years prior to the modification more representative of WEPCO's normal operations.

Because the applicability determination must be made in advance of construction, EPA's NSR regulations provide that when an emissions unit "has not begun normal operations," actual emissions equal the "potential-to-emit of the unit" [see 40 CFR 52.21(b)(21)(iv)]. This approach is referred to as the actual-to-potential methodology. This regulatory provision may be overcome -- and NSR will not apply -- if the source owner agrees, in a federally-enforceable instrument -- not to increase its actual emissions above baseline level [see e.g., 40 CFR 52.21(b)(4)].

2. The WEPCO and Puerto Rican Cement Decisions

As noted above, to calculate whether a physical or operational change "increases" emissions, EPA regulations require it to find an increase in actual emissions [see 40 CFR 52.21(b)(3)(i)(a)]. Where the emissions unit has not "begun normal operations," EPA regulations recognize that future actual emissions are difficult to predict and employ future "potential" emissions as a proxy [see 40 CFR 52.21(b)(21)(iv)]. The linchpin under the current regulations for predicting future emissions after a modification is thus whether the unit has "begun normal operations."

Two recent Federal appellate court decisions have addressed EPA's interpretation of the phrase "begun normal operations." These decisions, Puerto Rican Cement Co., Inc. v. US EPA, 889 F.2d 292 (1st Cir. 1989) and Wisconsin Elec. Power Co. v. Reilly, 893 F.2d 901 (7th Cir. 1990) ("WEPCO"), occasion a reexamination of EPA's interpretation of the phrase, and of the usefulness of the regulatory language itself. The meaning of the phrase is highly fact-dependent, and these decisions have created uncertainty regarding its application; thus, as described later in this notice, EPA today changes its regulations for electric utility steam generating units to employ a more useful criterion.

Both cases involved physical changes to existing emissions units, but changes of differing extent, nature and result. In Puerto Rican Cement, the owner of a cement plant with several kilns sought to convert one "wet" kiln into a "dry" kiln, and to combine that kiln with another

kiln (see 889 F.2d at 293). The court observed that the total production capacity of the renovated single kiln would exceed the combined production capacity of the previous two separate kilns by "about 35%." Id. It noted that the renovated single kiln would employ a different "cement-making process" than the original kiln from which it was "converted," id. And it said that the new kiln would be "more efficient [and] may lead the firm to decide to increase the level of production," id. at 297 (emphasis in original). In reviewing EPA's interpretation of "begun normal operations," the court applied a highly deferential standard of review, since an agency's interpretation of its own regulatory language is typically given "'controlling weight unless it is plainly erroneous or inconsistent with the regulation'" [see 889 F.2d at 297, quoting Udall v. Tallman, 380 U.S. 1, 16-17 (1965) (citation omitted)]. The court concluded that on the facts of the case, EPA's interpretation that "normal operations" had not begun was not "arbitrary or irrational," id. at 298, and hence EPA's application of the actual-to-potential test to predict future emissions was permissible.

In WEPCO, 893 F.2d 901, the Seventh Circuit was faced with a different kind of modification. There renovations were proposed for several older (35 to 50 year old) coal-fired electric utility boilers. The physical changes involved repair and replacement of turbine-generators, steam drums and other major components. The EPA contended, as it had in Puerto Rican Cement, that these changes went beyond "normal operations" and thus warranted use of future potential emissions as the test for an emissions increase over past actual emissions. Here the court disagreed with EPA's interpretation that "normal operations" had not begun. The court coined the phrase "like-kind replacement" to describe the type of renovation occurring at the WEPCo plant. Id. at 917. The court described a "like-kind replacement" as one that "does not 'change or alter' the design or nature of the facility. Rather, it merely allows the facility to operate again as it had before the specific equipment deteriorated." Id. at 908. In determining whether such a "like-kind replacement" had "begun normal operations," Id. at 917, the court considered whether a "realistic assessment of [the] impact [of the change] on ambient air quality levels is possible.'" Id. at 917 [quoting Alabama Power Co. v. Costle, 636 F.2d 323, 379 (D.C. Cir. 1979)]. The court said that where the

renovations were "like-kind replacements," EPA could not reasonably interpret its regulations to say that such a unit was so different that it has not "begun normal operations." Thus, it concluded that the "actual-to-potential" test could not be applied, under EPA's regulations, to units simply undergoing "like-kind replacements."

Neither of these decisions specified the threshold for when a unit has "begun normal operations." Based on these decisions, under its current regulations, EPA must consider the facts of each case and apply the actual-to-potential test only where the change is sufficiently significant to support a finding that "normal operations" have not "begun." At least for changes that are "like kind replacements," "normal operations" have begun, and the actual-to-potential test is impermissible.

Because the "begun normal operations" criterion is highly fact-dependent and its application is inherently case-by-case, it may be an uncertain indicator of what emissions test will be applied in a given instance. However, EPA's extensive experience with electric utilities, and the generally similar nature of operations within this source category, provide EPA an adequate basis on which to predict future actual emissions from such units in most cases. Consequently, as explained below, EPA is today revising its regulations to apply the actual-to-actual test on all physical or operational changes at electric utility steam generating units save those that are an addition of a new unit or constitute a replacement of an existing unit.

F. The Clean Air Act Amendments of 1990

1. New Source Review and the Acid Rain Provisions

The 1990 Amendments, Pub L. No. 101-549, 104 Stat. 2399 (Nov. 15, 1990), made numerous changes in the nonattainment provisions of the CAA and added a new title to address the problem of acid rain. The amendments attack nonattainment problems with a broad array of new requirements all designed to bring all areas of the country into attainment with the national ambient air quality standards for all pollutants. These requirements include traffic reduction strategies, use of alternative clean fuels, increased offset requirements for stationary sources, and changes in the threshold size of stationary sources subject to NSR. A principal theme of the legislation is the establishment of categories of nonattainment areas based on the severity of the pollution problem. The more severe the area, the more controls Congress required be imposed.

The Amendments also establish, in title IV, a new control scheme for addressing the acid rain problem. The exclusive focus of this program is on utility power plant emissions of sulfur dioxide and nitrogen oxides. The 1990 Amendments require sulfur dioxide emissions from utilities to be reduced by approximately 10 million tons annually in two phases -- the first to take effect in 1995, the second in 2000. A total of 111 specific plants are targeted in Phase I, and will be required to reduce their SO2 emissions to specified emissions limits. In Phase II, these plants, and almost all others, are subject to even lower SO2 emissions limits. This reduction program is to be implemented through a new market-based system under which emissions allowances reflecting the required reduction in current emissions are allocated to existing utility plants. Plant owners, who are required to hold allowances equal to their actual emissions, are then free to trade these allowances. Thus, the emissions of individual units may vary from the initial allocation of allowances, but aggregate emissions are always held to the program's overall target level. This program will provide powerful incentives to sources to undertake pollution control projects.

Because of these requirements, many of the plants subject to Phase I controls must make compliance decisions within the next year in order to assure that the complicated control equipment that may be necessary to meet Phase I standards is in place by the 1995 deadline. In enacting title IV, Congress did not suspend any title I requirements for this work. However, the massive industry-wide undertakings of pollution control projects warrants a clarification of the NSR requirements of title I. In particular, NSR provisions should not inadvertently bias a utility towards or against any means of complying with the acid rain provisions. The EPA believes the amendments promulgated today and the clarification of its current policy under its present NSR regulations provide adequate assurances that utilities can undertake title IV pollution control projects without uncertainty as to the applicability of the various title I new source requirements.

2. Repowering and Clean Coal Technology Projects

In title IV of the 1990 Amendments, which creates the acid rain program, Congress made changes in the applicability of new source requirements to changes involving repowering and Clean Coal Technology (CCT) projects.

Section 409 grants an extension of the acid rain controls deadline to sources that seek to comply with the acid rain reductions by repowering a unit with qualifying clean coal technology. Section 402(12) defines repowering as:

> [The] replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of the date of enactment of the Clean Air Act Amendments of 1990. Notwithstanding the provisions of section 409(a), for the purpose of this title, the term 'repowering' shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

[see CAA §§ 402(12) and 409(a)].

Congress provided that repowering projects that qualify for a Phase II compliance extension would also be exempt from NSPS requirements, so long as the repowering "does not increase actual hourly emissions for any pollutant regulated under the Act" [see CAA § 409(d)]. An operator can qualify for the 3-year extension of the Phase II emissions limitation by demonstrating (by December 31, 1997) to the permitting authority that one or more units will be

repowered with a qualifying clean coal technology to meet the title IV restrictions. The operator must provide, no later than January 1, 2000, additional documentation of the repowering project including a preliminary design and engineering effort for the project and a binding contract for the majority of the equipment needed, as well as any additional information the reviewing authority requires.

Today's amendments also implement an exemption from new source requirements for CCT demonstration projects created by Congress in § 415 of title IV of the 1990 Amendments. In these provisions, CCT is defined as any technology not in widespread use on the date of enactment that achieves significant reductions in SO2 or nitrogen oxides (NOx) emissions associated with burning coal in the generation of electricity, process steam, or industrial products [see CAA § 415(a)]. A CCT "demonstration project" is a project funded under DOE's CCT program or a similar project funded by EPA.

Repowering projects that are awarded funding from the Department of Energy (DOE) as permanent CCT demonstration projects (or similar projects funded by EPA) are exempt from NSPS and PSD requirements so long as potential emissions (see 40 CFR 52.21(b)(4)) from the unit do not increase as a result of the project [see CAA § 415(b)(3)]. These funded projects may still be required to comply with the nonattainment NSR provisions of title I of the CAA, unless they are excluded as pollution control projects.

The installation, operation, cessation, or removal of a temporary CCT demonstration project that is operated for 5 years or less is exempt from NSPS and both PSD and nonattainment new source requirements [see CAA 415(b)(2)]. However, the facility still must comply with the applicable SIP and other requirements necessary to attain and maintain the NAAQS.

Finally, in § 415(c), Congress provided an exemption from NSPS and PSD for the reactivation of "very clean units" otherwise in compliance with the CAA that had been shut down for at least the 2 years prior to enactment of the 1990 Amendments and that, prior to the shutdown, had been equipped with pollution controls with a removal efficiency of at least 85 percent for sulfur dioxide and 98 percent for particulates, and had been equipped with low-NOx burners.

III. Discussion of Final Action on Proposal.

A. Pollution Control Projects.

1. Regulatory Changes for Pollution Control Projects.

a. Background.

The EPA proposed to amend its PSD and nonattainment regulations as they pertain to utility pollution control projects by exercising its authority under the statutory definition of "modification" and confirming the Agency's current policy that such projects are not subject to NSR unless they render the unit less environmentally beneficial. Generally, pollution control projects at existing stationary sources are not major modifications subject to NSR requirements for the simple reason that they do not result in an increase in actual emissions. In addition, EPA has always recognized that Congress did not intend that every activity at an existing facility be considered a physical or operational change for purposes of the NSR.

The EPA proposed to adopt revisions to its PSD and nonattainment regulations for the addition, replacement or use at an existing electric utility steam generating unit of any system or device whose primary function is the reduction of air pollutants (including the switching to a less-polluting fuel where the primary purpose of the switch is the reduction of air pollutants). Under the proposal, a utility pollution control project would not be treated as a physical or operational change unless the project renders the unit less environmentally beneficial.

The key to this addition to the list of exclusions from the term physical or operational change is EPA's judgment that Congress did not intend that pollution control projects be considered the type of activity that should trigger NSR. The EPA proposed regulatory language to explicate and formalize its statutory authority to exclude pollution control projects under the NSR provisions. In 1977, when Congress enacted the NSR provisions of the CAA, it provided that the term "modification" in NSR shall have the same meaning as the term "modification" under NSPS [see §§ 169(2)(c), 171(4)]. At the time, regulations promulgated under the NSPS provisions defining "modification," provided that the term "modification" does not include:

> The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emissions control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

[see 40 CFR 60.14(e)(5)]. In 1978, EPA noted that "in adding § 169(2)(c) to the CAA, Congress indicated that it intended to conform the meaning of 'modification' to 'usage in other parts of the Act' [see 123 Congr. Rec. H11955, 11957 (Nov. 1, 1977)" also see 43 FR 26396 (June 19, 1978)]. Thus, just as EPA had the statutory authority to exclude pollution control projects by regulation from NSPS, the statutory authority exists for EPA to explicate by regulation an exclusion for pollution control projects from parts C and D of title I.

This exclusion under NSR reflects the existing regulatory exclusion for pollution control activities under NSPS regulations, and several recent case-specific nonapplicability determinations under the NSR programs. The NSPS regulatory exclusion contains the proviso that the replacement of a pollution control system or device cannot be less "environmentally beneficial" to qualify for the exclusion [see 40 CFR 60.15(e)(5)]. With respect to NSR, the proposal adopted a similar regulatory exclusion for pollution control projects in the PSD and nonattainment context. The major difference in the proposed NSR exclusion is that it would apply the "not less environmentally-beneficial" test to the addition and use, as well as the replacement, of a pollution control system or device. This change reflects the distinct air quality component of the PSD and nonattainment programs. By focusing on whether a pollution control project is a physical or operational change within the meaning of the NSR regulations, the proposal avoids the need to undertake a quantitative emissions increase calculation in every case, as would be necessary if such projects were deemed to be physical or operational changes. The EPA expects that most, if not all, pollution control projects will reduce net actual emissions. Nevertheless, the Administrator's authority to consider individual pollution control projects provides an adequate opportunity to determine that a pollution control project would somehow result in an adverse environmental impact and thus conclude that the project renders the unit less environmentally beneficial, and is therefore a physical or operational change that may be subject to NSR.

As proposed, a pollution control project refers to a project undertaken at a utility unit for purposes of reducing emissions from such unit. These changes are limited to the installation of conventional or innovative emissions control equipment, including, but not limited to,

installation of conventional and advanced flue gas desulfurization, sorbent injection for sulfur dioxide (SO2) and NOx controls, electrostatic precipitators, and projects undertaken to accommodate switching to a less polluting fuel, including natural gas or coal re-burning, co-firing of natural gas and other fuels for the purpose of controlling SO2 and NOx emissions.

Likewise, any activity that is necessary to accommodate switching to a less polluting fuel is considered to be part of the pollution control project. In some instances, this may involve changes to the pollution generating equipment (e.g., boiler), but only if the changes are necessary to maintain the normal operating capability of the unit at the time of the project, where the capability would otherwise be impaired as a result of the fuel switch. For example, an electric utility steam generating unit that switches from a higher sulfur bituminous coal to a low-sulfur subbituminous coal may need to make certain changes to the boiler in order to avoid derating the unit.

Changes that are intended primarily to restore original capacity or to improve the operational efficiency of the facility are not considered to be part of a pollution control project for purposes of today's rule. Also, the source still must comply with all applicable SIP limits and requirements, permit conditions and applicable NAAQS or PSD increment limits.

As proposed, this pollution control project exclusion did not extend to source categories other than electric utility steam generating units. The EPA so limited this provision because, in contrast with a general lack of experience with other industries, EPA has extensive experience in addressing new source applicability issues regarding pollution control projects in the utility industry. That experience led EPA to conclude that pollution control projects in the utility industry are generally environmentally beneficial.

As noted above, generally pollution control projects at existing stationary sources are not major modifications subject to NSR because they do not usually result in an increase in actual emissions, and EPA believes that, in general, pollution control projects were not intended by Congress to be considered physical or operational changes for purposes of NSR.

The EPA applies its PSD regulations in harmony with its NSPS regulations, which exclude most pollution control

projects [see 40 CFR 60.14(e)(5)]. In 1977, Congress incorporated the NSPS definition of modification into the PSD and nonattainment statutes [see CAA §§ 111(a)(4), 169(a)(c), 171(4)]. In addition, the legislative history reflects that, as a general matter, Congress intended to conform the meaning of "modification" for PSD purposes to the usage under the NSPS program [see 123 Cong. Rec. H11957 (November 1, 1977)]. The EPA reiterated this view in 1978 (see 43 FR 26396, June 19, 1978). Subsequently, EPA interpreted its NSR regulations to incorporate the NSPS pollution control project exclusion. The EPA later voiced concern about incorporating the precise NSPS pollution control language in the NSR context absent explication through notice-and-comment rulemaking largely because of the ambient air quality component of NSR that is absent from the NSPS program. In recent years however, EPA has consistently excluded pollution control projects from NSR provided that the proposed project would be environmentally beneficial, taking into account ambient air quality. In light of the title IV requirements and other provisions of the 1990 Amendments, EPA confirms that it will continue to consider the overall environmental consequences of pollution control projects for NSR applicability. By its nature, a determination of whether or not a project renders a unit less environmentally beneficial involves case-by-case assessment of its net emissions and overall impact on the environment. In making such assessments, EPA must consider the overall emissions before and after the project, as well as any other relevant environmental factors. As a result, no single factor can be identified in advance for purposes of making this determination.

b. Comments Generally Favoring the EPA Proposal.

In general, comments from industry supported the proposal to exclude pollution control projects. Commenters supporting the provision noted that the exclusion is consistent with the CAA and EPA's earlier determinations regarding such projects. Indeed, several commenters expressed the view that no change in EPA's rules was necessary. One commenter noted that Congress indicated its intent not to apply NSPS or NSR requirements to pollution control projects by adopting the NSR definition of "modification."

Another commenter pointed out that because of the number of projects that will shortly be spawned by the acid rain provisions of the CAA, if permitting were required for

every utility operator that plans a fuel switch or the installation of pollution control equipment, EPA would be overwhelmed with applications. This could affect the reliability of the electric utility industry and delay compliance with title IV. One commenter noted that a utility should not be prevented from qualifying for the pollution control exclusion if that utility takes steps to restore diminished capacity of a power plant at the same time that the utility undertakes a pollution control project such as repowering.

Several commenters supported flexibility for utilities on strategies for SO2 control. Two commenters noted that if the national SO2 emissions cap is maintained, plant modifications that may increase SO2 emissions at one unit should not trigger NSR or NSPS requirements. Another commenter suggested that in light of the SO2 emissions caps, utilities should be permitted to undertake pollution control projects or make nonroutine changes, even though such changes increase SO2 emissions, without being forced to install technology (such as scrubbers) to control SO2.

c. Comments Generally Opposing the EPA Proposal.

Commenters opposed to the exclusion of pollution control projects from NSR provisions disputed EPA's authority to create such "exemptions" and disagreed that Congress intended to exclude pollution control projects from NSR. One commenter stated that the pollution control project exclusion is illegal and conflicts with § 182(e)(2) of the CAA, noting that while § 182(e)(2) provides limited NSR relief for some pollution control projects, it is not a blanket "exemption" from NSR, because the requirement to achieve the lowest achievable emission rate (LAER) remains effective, which demonstrates congressional intent to prevent EPA from granting broader exclusions.

Opponents to the exclusion for pollution control projects also pointed out that efforts by utilities to reduce one pollutant can often increase emissions of another. Such efforts, as well as projects that reduce pollution in one area but increase it in another, should not be "exempted" from NSR or PSD provisions. Several commenters provided examples of how installation of pollution control equipment or fuel switching aimed at reduction of SO2 also had the effect of increasing emissions of NOx and particulate matter, and how installation of low-NOx burners increased VOC emissions.

Some opponents to the exclusion for pollution control

projects said that the definition of pollution control project is overly broad, and that EPA lacks authority to apply such a broad definition.

d. Comments Suggesting Revisions to the Proposal.

Several commenters, both for and against the exclusion, suggested specific regulatory changes to the pollution control exclusion. For instance, numerous commenters requested a clarification of the environmentally beneficial test. In addition, the following suggestions were made with regard to the definition of "pollution control project":

(1) include any upgrade of the pollution control efficiencies of existing devices;

(2) include "pollution prevention" changes such as leak detection and repair programs and the attendant site changes;

(3) clarify that the pollution control project need not be a permanent change;

(4) include boiler alterations involving natural gas cofiring, reburn, or reburn with sorbent injection even though there are benefits other than pollution control; and

(5) include impacts on other Class I area air quality related values as well as visibility in determining whether a project that would increase emissions is nevertheless environmentally beneficial.

e. The EPA Analysis.

Based on a review of the comments, EPA has determined to adopt a formal pollution control project exclusion for electric utility steam generating units. Thus EPA is today adopting revisions to its PSD and nonattainment regulations for the addition, replacement or use at an existing electric utility steam generating unit of any system or device whose primary function is the reduction of air pollutants (including the switching to a less-polluting fuel where the primary purpose of the switch is the reduction of air pollutants). Under the regulations as adopted today, a utility undertaking a project qualifying for the pollution control project exclusion will not be subject to NSR under either PSD or nonattainment.

In the proposed rule, EPA did not provide any specific definition of the environmentally beneficial standard. Numerous commenters noted the lack of a specific standard for the environmentally beneficial test and requested that EPA provide a definition for this new term and guidance as to how it will be applied. Of course, as noted above, pollution control projects at existing stationary sources

are generally not subject to NSR requirements for the simple reason that they do not usually result in an increase in actual emissions. In addition, as also noted above, EPA has determined that Congress did not intend that pollution control projects be considered the type of activity that should trigger NSR.

On the other hand, several commenters pointed out that a project that reduces one pollutant should not be allowed to increase emissions of another pollutant if that increase will cause or exacerbate a different pollution problem. More specifically, an environmental commenter suggested that EPA had endorsed at the Congressional hearing a view that increases would not be allowed in nonattainment areas absent a "compelling showing."

First, as discussed, nothing in today's action authorizes any emissions increase that would cause or contribute to a violation of the NAAQS, PSD increment or visibility limitation. Second, the proposed and final rule provide an appropriate way of enabling utilities to undertake pollution control projects in an expeditious manner while protecting air quality. Although a pollution control project could theoretically cause a small collateral increase in some emissions, it will substantially reduce emissions of other pollutants. In recognition of this, the rule provides for a case-by-case assessment of the pollution control project's net emissions and overall impact on the environment. Third, as discussed in the following section, the permitting authority can require additional modeling under certain circumstances to evaluate the air quality impact of a pollution control project, thereby helping to assure protection of air quality. The EPA considers these safeguards to be adequate to address air quality concerns in both attainment and nonattainment areas.

Several commenters challenged the need for a regulatory exclusion, noting that EPA had already excluded numerous individual pollution control projects pursuant to its existing regulatory authority. However, while EPA has in fact made case-by-case determinations excluding pollution control projects from NSR, it has never provided a comprehensive statement of its policy in this regard nor formally included this exclusion in its NSR regulations governing SIP's or its own NSR regulations. Because of the enormous surge in projects that utilities can be expected to undertake in response to the acid rain provisions, EPA believes that a formal rulemaking spelling out the exact

parameters of the exclusion is necessary.

At least one commenter cautioned EPA against requiring sources to submit "applications" to secure the pollution control project exclusion, lest sources face excessive paperwork burdens and lengthy delays every time they change their pollution control equipment. Under today's rule, and consistent with the other NSR applicability decisions, sources remain responsible in the first instance for determining what permitting requirements apply to their activities. Beyond issuing any construction or operating permits that may be needed, the permitting authority is not necessarily involved unless a source seeks a determination of NSR applicability on its own or a modeling analysis is required.

Several commenters requested that this exclusion be extended to nonroutine repairs that are undertaken by the utility in conjunction with the pollution control project. However, title IV's overall national SO2 ceiling and emission trading program do not allow EPA to simply ignore the local air quality impact of SO2 increases at individual title IV-covered facilities. The national emissions caps established by title IV are not designed to protect plant-specific considerations of local air quality, the focus of title I's NSR requirements. This argument is also refuted by the plain language of title IV which by its terms does not supersede title I [see §§ 403(f) and (g), 413].

Several opponents of the exclusion point out that certain pollution control technologies can actually increase emissions of other pollutants and that the installation of a pollution control project may result in increased utilization of the unit, and thereby result in an increase in actual emissions. As noted above, EPA expects that pollution control projects will decrease actual emissions. Moreover, even though emissions increases are possible in some cases, EPA is not precluded from creating this exclusion. The mere fact of an emissions increase, standing alone, does not render the exclusion inconsistent with the CAA. For instance, EPA regulations have long excluded emissions increases associated with routine maintenance repairs and replacement, as well as increases in the operations of a unit in response to fluctuations in the market [see, e.g., 40 CFR 52.21(b)(2)(iii)(a), (f)]. Given the modeling safeguard and the overall benefit to the environment of pollution control projects as well as the relevant statutory provisions, EPA is confident that the

regulatory clarification of this exclusion is a lawful and appropriate exercise of its powers.

It was also suggested that the pollution control project exclusion is inconsistent with § 182(e)(2) of the CAA. Section 182(e)(2) provides that in extreme ozone nonattainment areas (the Los Angeles area is the only one), any physical or operational change "which results in any increase in emissions" will be considered a modification. The source can avoid the offset requirements (but not the rest of NSR) by internally offsetting (i.e., netting) any increase in emissions at a ratio of at least 1.3 to 1. The provision also provides that the extreme area offset provisions (but again not the rest of NSR) do not apply to the installation of equipment required to comply with "the applicable implementation plan, permit, or this Act."

The EPA does not agree that this nonattainment provision, which applies to only one area, somehow precludes EPA from adopting an exclusion to its general NSR rules regarding pollution control projects. While there may be some overlap (i.e., utility compliance projects undertaken in the Los Angeles area that qualify under this rule as pollution control projects), in general the two provisions are quite different. Today's rule is limited to utilities but applies to all areas of the country, while § 182(e)(2) applies to all source categories but only to the Los Angeles area. Section 182(e)(2) also appears to apply to a broader category of changes. There is no evidence that Congress intended this limited provision to preempt EPA from adopting a broad pollution control project exclusion. On the other hand, the CAA conferees did specifically direct EPA to find an administrative resolution of the WEPCO issues (see Conference Comm., Joint Explanatory Statement of the Committee of the Conference to Accompany S. 1630. Rep. 101-951, 101st Cong. 2nd Sess. (1990) pp. 344-45). For these reasons, EPA does not believe that § 182(e) directly or indirectly limits EPA's authority here.

2. Additional Modeling Requirements.

a. Background.

A proposed pollution control project or physical or operational change cannot result in an emissions increase that will cause or contribute to a violation of a NAAQS, PSD increment, or visibility limitation [see CAA §§ 110(a)(2)(c), 165, 169A(b), 173]. The pollution control projects exclusion does not authorize any significant net increase in emissions that would have this proscribed

impact. It is possible that a pollution control project, while not causing any increase in maximum hourly emissions, will cause a significant net increase in actual emissions, which in turn could cause or contribute to the violation of a NAAQS, increment or visibility limitation. For this reason, as proposed, the reviewing authority may require a source to perform an air quality impact analysis (modeling) whenever 1) it has reason to believe that a proposed change will result in a significant net increase in actual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis and 2) it has reason to believe that such an increase would cause or contribute to a violation of a NAAQS, increment or visibility limitation. If this modeling indicates that this increase in emissions will cause or contribute to a violation of any ambient standard, PSD increment or visibility limitation, the pollution control exclusion does not apply.

b. Comments on the EPA Proposal.

Many commenters viewed the modeling requirement as ensuring that the pollution control project exclusion will not have an adverse impact on local air quality because sources must still comply with all applicable emission limits necessary to protect NAAQS, PSD increments, and visibility.

However, several commenters expressed concern over the adequacy of EPA's air quality impact analysis requirement as a safeguard due to the methodology proposed to calculate actual emissions. Specifically, an environmental group pointed out that using increases in "representative actual annual emissions" as the test for determining whether a pollution control project results in unacceptable impacts on air quality can exclude real emissions increases (e.g., due to demand growth), and thus fails to account for the full impact of the project. This commenter asserted that increases in "actual emissions" should be the key to use of the pollution control project exclusion.

Some commenters also objected due to the fact that the proposal relies on State and local agencies to be aware of the project and request the analysis. One commenter added that it is unclear how a violation of the NAAQS can be avoided before the fact and how the permitting agency could require an air quality analysis if the pollution control project is not subject to NSR.

Finally, a government agency questioned why the

safeguard provision protected "visibility limitations" when the PSD program is designed to protect all "air quality related values" in Class I areas. An environmental group commented that the proposed rule does not provide for notification to Federal Land Managers so that they can fulfill their responsibilities to protect Class I areas.

c. The EPA Analysis.

After careful review of the proposal and the comments, EPA has determined to promulgate the modeling provision as proposed. The EPA does not believe the objections to this provision to be well-founded. Although the proposal does not explicitly require sources to inform the permitting authority of pollution control projects, EPA anticipates that in most, if not all, circumstances involving pollution control projects, permitting authorities will be aware of the source's intentions. For instance, State permitting requirements may require the source to bring the project to the permitting authority or the source may wish to do so to secure emission reduction credits for pollutants that will be decreased. In addition, most projects at utilities are typically subject to public scrutiny in a variety of forums as a result of filings made with Public Utility Commissions and other local, State or Federal agencies. Consequently, it is unlikely that a utility could proceed with a pollution control project without some type of review regarding CAA or other requirements. This will be especially true of pollution control projects undertaken for the purpose of compliance with title IV.

The EPA disagrees with the environmental group comment that it is inappropriate to hinge use of the pollution control project exclusion on increases in "representative actual annual emissions" rather than increases in "actual emissions." Nothing in today's rules would authorize pollution control projects that result in a violation of a NAAQS, PSD increment or visibility limitation. The commenter is correct that the rule as proposed would in certain circumstances not subject to review significant increases in actual emissions from a source that follow completion of the pollution control project. However, the rule is clear that this could occur only where the increase in question in fact does not result from the pollution control project, but rather from an independent factor such as demand growth. As discussed above, it is not the purpose of the NSR program to subject all emissions increases to permitting requirements, only increases that result from a

nonroutine change at an existing plant. The State may always revise its SIP to correct NAAQS violations that it concludes are caused by increased utilization but do not result from a pollution control project at that plant.

The government agency commenter is correct that PSD permitting requirements are intended to prevent a major new source or major modification from causing an adverse impact on air quality related values in Class I areas. However, the agency ignores the fact that, in general, existing facilities that have not been modified are not subject to ambient requirements related to air quality related values. The EPA believes that today's rule will allow reviewing authorities sufficient flexibility to protect, to the extent required under existing law, Class I areas from possible adverse impacts from pollution control projects. Moreover, as noted above, pollution control projects reduce emissions of targeted pollutants. While emissions of other pollutants could in theory increase in a few cases, EPA does not expect this to result in significant impacts on Class I areas. Where prospective projects may be cause for concern, permitting agencies have the authority to require modeling to prevent increment or visibility violations, and likewise may solicit the views of others in taking any other appropriate remedial steps deemed necessary to protect Class I areas. In deciding to adopt the rule as proposed, EPA emphasizes that all environmental impacts, including those on Class I areas, can be considered in evaluating whether a utility unit is "less environmentally beneficial" after controls than it was before controls. Accordingly, the final rule allows consideration of all environmental impacts -- beneficial and adverse -- in making a determination.

B. Representative Actual Annual Emissions.

1. Background.

The EPA proposed to clarify its methodology for calculating emissions increases at electric utility steam generating sources that had begun normal operations. The EPA proposed to compare actual emissions before and after changes for all physical or operational changes at an existing electric utility steam generating unit other than the addition of a new unit or the replacement of an existing unit. The EPA proposed to consider a unit to be replaced if it would constitute a reconstructed unit within the meaning of 40 CFR 60.15. Since there is no relevant operating history for wholly new units and replaced units, it is not

possible to reasonably project post-change utilization for these units, and hence, their future level of "representative annual actual emissions." For other changes, past operating history, and other relevant information, provides a basis for reasonable projections.

As proposed, the "representative actual annual emissions" methodology requires the utility to compare its baseline emissions with its future actual emissions to determine if the proposed change will increase actual emissions. The EPA's existing regulations define baseline emissions as "the average rate, in tpy, at which the unit actually emitted the pollutant during a 2-year period which precedes the particular date and which is representative of normal source operation" (see, e.g., 40 CFR 52.21). The Administrator "shall" allow use of a different time period "upon a determination that it is more representative of normal source operation." Id. Although not required by the regulations, EPA has historically used the 2 years immediately preceding the proposed change to establish the baseline [see 45 FR 52676, 52705, 52718 (1980)]. However, in some cases it has allowed the use of earlier periods. For example, in WEPCO, EPA found the fourth and fifth years prior to the modification more representative of WEPCO's normal operations since the source's capacity was reduced due to physical problems. The EPA proposed to retain this regulatory language, but to adopt a new presumption regarding its implementation.

Under the proposed action, the Administrator would presume that any 2 consecutive years within the 5 years prior to the proposed change is representative of normal source operations for a utility. This presumption is consistent with the 5-year period for "contemporaneous" emissions increases and decreases in 40 CFR 52.21(b)(3)(i)(b). Source owners or operators desiring to use other than a 2-year period or a baseline period prior to the last 5 years may seek the Administrator's specific determination that such period is more representative of normal operations.

The future actual projection is the product of: (1) the hourly emissions rate, which is based on the unit's physical and operational capabilities following the change and federally-enforceable operational restrictions that would affect the hourly emissions rate following this change; and (2) projected capacity utilization, which is based on (a) the unit's historical annual utilization, and (b) all

available information regarding the unit's likely post-change capacity utilization. The projection of post-change capacity utilization for applicability purposes should be based on a projection of utilization for a period after the physical or operational change. Specifically, EPA proposed to allow sources to base the projection of utilization on the 2 years after the change, or a different consecutive 2-year period within the 10 years after the change, where the Administrator determines that such period is more representative of normal source operations.

2. Comments Generally Favoring the EPA Proposal.

a. Several commenters favored the expansion of the time period for establishing the pre-change emissions baseline. Suggestions included:

(1) allow the use of any 2 consecutive years within the last 5 years of operation to allow for a more representative baseline for units that have been shut down;

(2) allow utilities to request to use periods of representative high utilization outside the 5 year time period;

(3) add the "any 2 out of the prior 5 year baseline period" discussed in the preamble to 40 CFR parts 51, 52, and 60;

(4) allow utilities to use the maximum utilization in any 1 year within at least the last 10 years, since 10 years is a more relevant capacity investment planning horizon than 5 years;

(5) clarify that the source will be able to select the relevant 2-year period with approval of the reviewing authority required only when the pre-change baseline is outside of the 5-year period proceeding the change;

(6) expand the baseline calculation period from 5 years to 10 years to be consistent with the after-change calculation period and to address a more representative time period;

(7) allow the use of any 2 years (rather than consecutive years) due to long reserve shutdowns and because maintenance planning requires that utility boilers be operated in "abnormal" conditions for long durations; and

(8) require sources to back up the choice of which 2 years to use with a short-term standard using an hourly rate, use the same 2-year period for determining the short term and annual rates, and codify the 2 years used for the limit.

Several comments that recommended expanding the

proposal to include industrial sources in the NSR exemption also noted that a "5-year window" is not satisfactory for industrial sources which do not always have representative periods of emissions immediately before a physical change. One industrial commenter suggested the use of any 2-year period be allowed.

Commenters in favor of the future actual emissions calculation method noted that it will alleviate uncertainty for nonroutine repair, replacement, and maintenance projects while still protecting local air quality; the future-actual method reduces speculation and allows more reliance on factual data; and the actual-to-future-actual emissions comparison is more appropriate to look at the operating history and projected capacity of an existing unit to determine whether a change will increase emissions. One commenter stated that the actual-to-potential method discouraged environmentally beneficial modifications, but suggested that the most appropriate policy would be to adopt a potential-to-potential test.

One commenter noted that the actual-to-future-actual test would end what was felt to be the "unlawful and unfair practice" of using the NSR program to "arbitrarily reduce allowable hours of operation or rates of production for existing sources." Countering the argument that the actual-to-future-actual test could create public health problems, two commenters noted that utilities must comply with all Federal, State and local air quality restrictions regardless of the tests used. Also supporting the actual-to-future-actual test, one commenter pointed out that source owners will be motivated by incentives in the CAA, proposed regulations, and market forces to finance and engineer economic and efficient physical and operational changes at plants so as to achieve excellent environmental control. One commenter favored calculating future emissions over a representative 2-year period within a 5-year period after the change.

3. Comments Generally Opposing the EPA Proposal.

One opponent of the proposed methods stated that emission increases at power plants would now be fostered since the proposal will allow utilities to choose their own definitions for when emissions have increased.

In general, opponents of the proposal regarding the pre-change baseline noted that the change is arbitrary and capricious and that there is no analysis in the docket suggesting that any 2-year period is more representative of

pre-change maximum emissions. Commenters noted that under the proposal, sources could select the years in which they had the highest emissions in an attempt to minimize the appearance of an increase and escape NSR. One commenter noted that the change in baseline calculation methodology would give utilities such flexibility in refurbishing, repowering, and life extension projects as to bias competitive power markets towards the continued use of existing old units rather than the construction of new ones.

Opponents to the use of future actual emissions stated that there is no reasoned basis for an unenforceable representative actual emissions approach, and application of this test to electric utilities is not consistent with EPA's established policy toward other sources. Other comments contended that the future actual test ignores all past precedents and that, in determining whether a change triggers NSR, EPA should compare actual emissions for the current unit to potential emissions from the altered source; the future actual test does not guard against artificially low estimates made by sources to escape NSR, nor does it protect against substantial increases made immediately after the 2-year period; and the future actual emissions calculation procedure amounts to self-regulation and is easily subject to abuse.

State and local air agencies generally opposed the future actual method of calculating post-change emissions. One noted that the appropriate emission increase test should be determined on a case-by-case basis. One agency noted that the actual-to-future actual approach results in a significant relaxation of title I NSR requirements and would allow utilities to upgrade equipment which may have lost significant generating capacity without the equipment being subject to NSR, hampering local air quality attainment and maintenance efforts. There were several comments that future emissions cannot be reasonably determined solely on past operating history. One State noted that direction is needed on how actual versus potential emissions are estimated.

A few commenters addressed the 2-year period after the proposed change which is the basis for calculating the future actual emissions. Opponents of the future actual concept stated that use of such a provision would result in unrealistically low future emissions projections and shield a company against efforts to enforce NSR requirements at a source that increased emissions 3 years after making

physical changes.

An environmental group and several State agencies noted that the projected post-change emissions should become an enforceable permit condition in order to commit a source to limit its future emissions to a specific amount and to provide assurance that these projections are reasonable estimates of expected emissions. If a source will not accept such a permit condition, then the source should have to use potential post-change emissions.

4. Comments Suggesting Revisions to the Proposal.

Three commenters suggested a more flexible test for ascertaining SO2 increases for determining applicability of NSR and NSPS requirements, namely a measure of pollution per unit of electrical output.

a. Commenters made the following specific suggestions for changes surrounding the future actual calculation method:

(1) develop guidelines to assist States in making like-kind determinations;

(2) require like-kind replacements to use the representative actual annual emissions for calculation of actual emissions;

(3) define "like-kind replacement" to include complete replacement of an existing emissions unit;

(4) define "routine repair and replacement;"

(5) apply the actual-to-actual test to like-kind replacement of an entire emitting unit;

(6) allow new units or greenfield plants to rely on future actual emissions if they can reliably project future emissions; and

(7) consider an alternative way to make the NSR accounting system consistent, such as basing it on past allowable to future allowable emissions.

Other suggestions included the following:

(1) provide guidance on routine repair and replacement and maintenance activities to include placing units on cold reserve and bringing them back on line, and

(2) use a 2-year period other than immediately after the change only when the EPA cannot clearly demonstrate that the 2-year period immediately following the change is not representative.

5. The EPA Analysis.

The EPA has decided to promulgate the proposed "representative actual annual emissions" methodology for calculating emissions changes at electric utility steam

generating units where the changes do not involve the construction of a new, "greenfield" unit or the replacement of an existing one. After a thorough review of the comments, EPA concludes that the comparison of "actual emissions before" to a projection of "actual emissions after" a physical or operational change at an existing utility steam generating unit is workable and, with the added safeguard discussed below, is the most suitable method for evaluating emissions changes at such sources.

Many commenters questioned EPA's proposed presumption that sources may use, as the baseline, emissions from any 2 consecutive years within the 5 years prior to the proposed change without regard to normal source operations. As discussed in the proposal, this presumption is consistent with EPA's decision in WEPCO and the 5-year period for "contemporaneous" emissions increases and decreases in 40 CFR 52.21(b)(3)(i)(b).

Moreover, EPA is not reading "normal source operations" out of the regulation as charged. Rather, the presumption recognizes the nature of utility operations without compromising the existing regulatory language which requires that the pre-change 2-year period used in defining baseline emissions be representative of "normal" operations. For example, as a system a utility's "normal" operations means directly responding to a demand for electricity. A cold winter or hot summer will result in high levels of "normal" operations while a relatively mild year will produce lower "normal" operations. By presumably allowing a utility to use any 2 consecutive years within the past 5, the rule better takes into consideration that electricity demand and resultant utility operations fluctuate in response to various factors such as annual variability in climatic or economic conditions that affect demand, or changes at other plants in the utility system that affect the dispatch of a particular plant. By expanding a baseline for a utility to any consecutive 2 in the last 5 years, these types of fluctuations in operations can be more realistically considered, with the result being a presumptive baseline more closely representative of normal source operation.

The EPA disagrees with comments seeking to allow the use of any 2 consecutive years within the last 5 years of a unit's "operation" rather within than the 5 years directly preceding the proposed change. A shifting of the 5-year period would be difficult to harmonize with definitions of contemporaneous contained in the regulations [see, e.g.,

40 CFR § 52.21(b)(3)(iii)]. This type of open-ended provision would even credit a unit which has been inoperative for 20 or 30 years or longer with a high level of emissions. The EPA notes, however, that as has always been the case under the prior regulations, any source owner or operator may request a determination that another baseline period is more representative of the unit's "normal" operations.

Several commenters opposing today's regulatory changes charged that without appropriate assurances utilities could deliberately underestimate future operations (and thus emissions) for the purpose of avoiding review or that even where a forthright estimate is made, the forecast may prove inaccurate. The EPA is concerned that without appropriate safeguards increases in future actual emissions that in fact resulted from the physical or operational change could go unnoticed and unreviewed. For this reason, EPA has added the safeguard explained below.

The EPA does not, however, agree with comments that post-change emissions estimates must always be made into permanent federally-enforceable permit conditions. To do so would permanently restrict a utility's legally allowable emission limits to its pre-change actual emissions level unless it subsequently underwent NSR, and would fail to account for the very real possibility that emissions might increase over baseline levels in the future for reasons unrelated to the physical or operational change in question. As discussed more fully in the following section, NSR applies only where the emissions increase is caused by the change. Thus the issue should be viewed more as one of tracking and monitoring post-change utilization and/or emissions levels at the unit to confirm that baseline emission levels are not exceeded as a result of the change.

To guard against the possibility that significant increases in actual emissions attributable to the change may occur under this methodology, EPA is clarifying in the final regulations that any utility which utilizes the "representative actual annual emissions" methodology to determine that it is not subject to NSR must submit for 5 years after the change sufficient records to determine if the change results in an increase in representative actual annual emissions. Utilities may use continuous emissions monitoring data, operational levels, fuel usage data, source test results or any other readily available data of sufficient accuracy for the purpose of documenting a unit's

post-change actual annual emissions.

Where the change does not increase the unit's emissions factor, i.e., the amount of pollution emitted by a source after control per unit of fuel combusted (such as pounds of SO2 emitted per ton of coal burned), the utility may submit annual utilization data, rather than emissions data, as a method of tracking post-change emissions. If annual utilization data show that the unit increased utilization above baseline levels, the permitting authority should determine whether the increase resulted from the change. Where a causal link exists between the change and the increase in utilization, the permitting authority should then determine whether emissions have also increased as a result of the change.

Changes that could increase a unit's emissions factor typically involve changes to the boiler itself. (Such changes do not include activities that qualify as pollution control projects under today's rule.) Where these types of changes exist, the utility should submit annual emissions data to the permitting authority. If these data suggests that the utility has increased annual emissions over baseline levels, the permitting authority should inquire whether the increase resulted from the physical or operational change. The utility may demonstrate that any increase was caused by an independent factor, such as demand growth.

Appropriate records are to be submitted to the permitting agency on an annual basis for a period of 5 years from the date the unit begins operations (i.e., post-change operations after an initial shakedown period). A longer period, not to exceed 10 years, may be required by the permitting agency where it has determined that no period within the first 5 years following the change is representative of source operations.

Since it is expected that utilities will submit the same data normally used to report emissions or operational levels under existing Federal, State or local air pollution control agency requirements, EPA does not expect that documentation of post-change actual annual emissions will impose any additional data collection burden on the part of a utility.

The purpose of this provision is to provide a reasonable means of determining whether a significant increase in representative actual annual emissions resulting from a proposed change at an existing utility occurs within

the 5 years following the change. Thus the intent is to confirm the utility's initial projections rather than annually revisiting the issue of NSR applicability. If, however, the reviewing authority determines that the source's emissions have in fact increased significantly over baseline levels as a result of the change, the source would become subject to NSR requirements at that time. The EPA has adopted this approach and the time period because it believes that, in most cases, any emissions increase resulting from a physical or operational change at a utility unit would occur within the first 5 years of normal operation of the unit after the change. Thus, EPA will presume that any increase in emissions levels more than 5 years after the change has occurred is not related to the physical or operational change.

In response to comments regarding "like-kind" replacements, EPA notes that today's regulations recognize no distinction between "like-kind" replacements and other nonroutine physical or operational changes at a utility steam generating unit. The "actual-to-future-actual" methodology promulgated today for calculating emissions changes applies to all types of changes at utility units, including the replacement of "like-kind" components at an existing unit. However, the "like-kind" replacement of a whole unit is for all practical purposes a replacement unit and, therefore, is treated as a new unit.

Although several commenters suggested that EPA should expand the representative actual emissions test to new and reconstructed units, EPA has decided not to do so. Since there is no relevant operating history for new or reconstructed units, it would not be possible to accurately project operations or emissions for these units. Consequently, the EPA has left unchanged the regulations which require that for any unit which has not begun normal operations, actual emissions are considered equal to the unit's potential-to-emit.

A few commenters requested that EPA define or provide guidance on "routine repair, replacement and maintenance" activities. The June 14 proposal did not deal with this aspect of the regulations, nor do the regulatory changes promulgated today. However, the issue has an important bearing on today's rule because a project that is determined to be routine is excluded by EPA regulations from the definition of major modification. For this reason, EPA plans to issue guidance on this subject as part of a NSR

regulatory update package which EPA presently intends to propose by early summer. In the meantime, EPA is today clarifying that the determination of whether the repair or replacement of a particular item of equipment is "routine" under the NSR regulations, while made on a case-by-case basis, must be based on the evaluation of whether that type of equipment has been repaired or replaced by sources within the relevant industrial category.

C. The Causation Requirement.

1. Background.

The NSR regulatory provisions require that the physical or operational change "result in" an increase in actual emissions in order to consider that change to be a modification [see e.g., 40 CFR 52.21(2)(i)]. In other words, NSR will not apply unless EPA finds that there is a causal link between the proposed change and any post-change increase in emissions. The EPA proposed to amend its rules to clarify this provision in the context of modifications at electric utility steam generating units.

Under the proposed regulations, any emissions increase attributable to a physical or operational change, such as a physical or operational change that significantly alters the efficiency of the plant, (see, Puerto Rican Cement, 889 F.2d at 297-8), must continue to be included in the post-change emissions calculation. The proposal clarified that where increased operations are in response to independent factors, such as system-wide demand growth, which would have occurred and affected the unit's operations even in the absence of the physical or operational change, such increases do not result from the change and shall be excluded from the projection of future actual emissions. Thus, in assessing whether the proposed change will result in an increase in actual emissions, utilities need not include in their projection of post-change utilization that portion of the increased rate of utilization, if any, due to factors unrelated to the physical or operational change, such as an increase in projected capacity utilization due to the rate of electricity demand growth for the utility system (of which that source is a member) as a whole.

Under today's rule, during a representative baseline period (see supra), the plant must have been able to accommodate the projected demand growth physically and legally even absent the particular change. Increased operations (and resultant increases in actual emissions) that could not physically and legally be accommodated during

the representative baseline period but for the proposed physical or operational change should be considered to result from the change.

2. Comments Generally Favoring the EPA Proposal.

Several utility representatives supported the proposed demand growth exclusion and the causation requirement. Many commenters requested clarification of certain points or expansion of certain provisions. One commenter noted that there should be a specific exclusion for emissions increases at a generating station resulting from generation shifts and decreased plant efficiencies caused by operation of pollution control systems. Another noted that the discussion of the criteria for recognizing "factors unrelated to the physical or operational change" should be improved upon because the proposed requirements that a facility must have been physically able to accommodate the projected growth during a "representative baseline period" could have a negative impact in utility capacity planning and investment decisions, depending upon how such a period is determined.

One commenter noted that EPA should specifically recognize an exception for units which have been inactive, because a unit should not have to include all of its emissions due to demand growth merely because it was in need of repair or maintenance while inactive. Commenters asked that EPA better define "independent factors" in the context of the demand growth exclusion. Lastly, one commenter stated that the final rule should reconcile the "demand growth exclusion" with the existing "hours of operation/rate of production" exclusion by confirming that increases attributable to system-wide demand growth are already excluded under the already-existing exclusion and, therefore, the "demand growth exclusion" only applies where there is a federally-enforceable permit term limiting hours of operation or production rate.

3. Comments Generally Opposing the EPA Proposal.

Opponents of the exclusion of emissions attributable to demand growth contended that there is no rational basis for ignoring such emissions. When increased capacity or utilization is the immediate goal of a project and an increase in emissions occurs, the project must be subject to NSR regardless of the underlying reasons for the increased capacity or utilization and corresponding emission increase. Contrary to the letter and purpose of the statute, the demand growth exclusion could result in major increases in

actual emissions going unreviewed and unregulated, would create serious local pollution problems, and would discriminate against companies that were successful in implementing energy efficiency programs. One local agency pointed out that it is virtually impossible to determine with any degree of certainty what portion of a unit's emissions are attributable to an increase in projected capacity utilization.

In addition, commenters noted that the exclusion will have an adverse effect on local agencies' ability to control emissions and that the time of construction of a project is the most efficient and effective time to address such emissions. One commenter stated that the exclusion for demand growth may further bias competitive power markets toward existing units, and that EPA failed to consider the impact of the causation requirement on utility operations, emissions or competition in power markets.

4. The EPA Analysis.

After careful consideration of the comments received and further analysis of the issues involved, EPA has decided to promulgate the causation provision as proposed.

Commenters argued that any post-change emissions increase, regardless of its origin, should subject a source to NSR. However, these arguments ignore the relevant statutory and regulatory modification provisions. No commenters challenging the provision have suggested that the statute and implementing regulations do not contain a causation provision. Rather, they argue that in the proposed rule EPA has misconstrued this requirement.

In conjunction with developing the representative actual annual emissions methodology, EPA recognized that the analysis of the causation requirement may disclose that an emissions increase that follows a nonroutine physical or operational change is merely coincidental, and in fact results from independent factors such as demand growth. It is important to emphasize, however, that this does not amount to a per se exclusion of demand growth from the emissions increase calculation. Rather, demand growth can only be excluded to the extent it -- and not the physical or operational change -- is the cause of the emissions increase. The EPA believes that this is a reasonable interpretation of the statutory provision in question, of EPA's own regulations, and of judicial precedents.

Consequently, where projected increased operations are in response to an independent factor, such as demand growth,

which could have occurred and affected the unit's operations during the representative baseline period even in the absence of the physical or operational change, the increased operations cannot be said to result from the change and therefore may be excluded from the projection of the unit's future actual emissions. Conversely, where the increase could not have occurred during the representative baseline period but for the physical or operational change, that change will be deemed to have resulted in the increase.

The EPA did receive numerous comments regarding the difficulty of applying this new interpretation. However, EPA believes it is possible to distinguish between emissions increases that are related to a physical or operational change from those that are not. This issue is a fact-dependent determination that must be resolved on a case-by-case basis. As discussed, EPA considers emissions increases due to increased operations that could not be physically or legally accommodated during the representative baseline period but for the proposed physical or operational change, to result from the change. The preamble to the proposal also made clear that any emissions increase attributable to a physical or operational change that significantly alters the efficiency of the plant, (see Puerto Rican Cement, 889 F.2d at 297-8), must continue to be included in the post-change emissions calculations. However, EPA in no way intends to discourage physical or operational changes that increase efficiency or reliability or lower operating costs, or improve other operational characteristics of the unit and does so by focusing on the effect of any nonroutine changes on the operating characteristics of the unit during the representative baseline period. The EPA recognizes that improvements such as these are desirable for economic reasons and to assure a reliable supply of electricity. Thus, physical or operational changes that improve operational characteristics will be treated in the same manner as any other changes. This means that where an improvement involves a routine change, it is excluded from the NSR definition of "major modification." Alternatively, where an improvement is not routine and an emissions increase results from the improvement, that portion of the emissions increase resulting from the improvement will be considered in determining whether the proposed change subjects the unit to NSR requirements.

Several commenters requested a clarification concerning a unit's ability to accommodate demand growth in its

pre-change configuration. In EPA's view, such a clarification is not warranted. As discussed above, operational levels that a unit could not have achieved during the representative baseline period but for the physical or operational change are considered to result from the change. Post-change emissions increases associated with such operational levels must, therefore, be considered to result from the change and be taken into account for NSR applicability purposes.

Numerous commenters pointed out that it may be very difficult to determine when an increase is caused by independent factors and when it is caused by the physical change. Also, an environmental commenter argued that this causation question must always be resolved in favor of including all post-change emission increases that follow a change which improves a unit's efficiency, since in its view an efficiency gain will always be the primary determinant of the utility's use of a generating unit, notwithstanding the presence of other necessary -- but not of themselves sufficient -- factors such as demand growth. However, as so formulated, the comment answers itself. If efficiency improvements are the predominant cause of the change in emissions and demand growth is not, the exclusion does not apply. But this is a question of fact which must be resolved on a case-by-case basis and is dependent on the individual facts and circumstances of the change at issue. EPA declines to create a presumption that every emissions increase that follows a change in efficiency is inextricably linked to the efficiency change.

In calculating demand growth, utilities may consider the company's historical operational data, its own representations, filings with Federal, State or local regulatory authorities, and compliance plans developed under title IV of the 1990 Amendments.

The EPA disagrees with comments that this provision could result in major increases in actual emissions going unreviewed with the potential to create serious local air pollution problems. First, the NSR major modification provisions do not apply to all increases in emissions, just emission increases which result from a nonroutine physical or operational change at an existing major source. Second, as has already been observed, this provision does not amount to a per se exclusion of demand growth. Finally, this new provision does not diminish the scope of the coverage of EPA's NSR regulations. Rather, it merely incorporates into

the actual-to-future-actual methodology a requirement of the pre-existing statutory and regulatory scheme.

Moreover, in response to those concerns that a demand growth exclusion could lead to serious local air pollution problems, EPA notes the restrictions it placed on the overall future projection in the proposal: the level of emissions the source claims that it will operate at should be consistent with current assumptions regarding the source's emissions that are used in the relevant SIP.

Finally the EPA does not agree with the commenter requesting that the final rule confirm that increases attributable to system-wide demand growth are already excluded under the existing exclusion for increases in hours of operation and, therefore, the "demand growth exclusion" only applies where there is a federally-enforceable permit term limiting hours of operation or production rate. The commenter's statement is not correct. Although a source may vary its hours of operation or production as part of its everyday operations, an increase in emissions attributable to an increase in hours of operation or production rate which is the result of a construction-related activity is not excluded from review (see WEPCO, 893 F.2d at 916 n.11; Puerto Rican Cement, 889 F.2d at 298).

D. Repowering.

1. Background.

As previously mentioned, title IV of the 1990 Amendments grants special treatment to utilities that seek to comply with the mandated acid rain reductions by repowering a unit with qualifying clean coal technology [see 1990 Amendments §§ 402(12), 409(a)]. Specifically, repowering projects that qualify for a Phase II compliance extension will also be exempt from NSPS requirements, so long as the repowering "does not increase actual hourly emissions for any pollutant regulated under the Act" [see § 409(d)]. The EPA interprets the requirement that the repowering not lead to an increase in "actual hourly emissions" as an expression of Congressional intent that with respect to repowering projects, EPA should use the same general approach to determining applicability as it has for other physical or operational changes, discussed above. Accordingly, EPA proposed rules provided that a repowering project which results in an increase over baseline in a unit's post-modification hourly emissions will not be eligible for this limited NSPS exemption.

The proposed NSPS exemption applied to repowering of

existing units at existing sources, so long as the project qualifies for the Phase II extension and satisfies the "actual hourly emissions" increase test. Because of this provision, the reconstruction limitations specified in 40 CFR 60.15 are not applicable to qualifying repowering projects. However, no special treatment can be afforded to a new unit which is located at a different site than the existing unit it replaces [see CAA § 409(d)].

Pursuant to § 409(e), EPA will provide expedited NSR processing for repowering projects and will encourage State permitting authorities to do the same.

2. Public Comment.

The EPA did not receive any comments opposing the repowering proposal while several industry and Congressional commenters supported it. The Congressional commenters requested clarification of EPA's interpretation of term "repowering." The Congressional commenters stated that the proposed definition of "repowering" can be interpreted as limiting qualifying repowering technologies to those that only involve the replacement of the boiler, disqualifying highly-promising, multi-pollutant technologies that do not involve boiler replacement.

3. The EPA Analysis.

In light of the lack of negative comments, EPA is today promulgating the CCT provisions as proposed. This includes no change in the definition of "repowering." However, EPA will follow an expansive interpretation of the term repowering, which should address many of the concerns expressed by some of the commenters while remaining consistent with statutory terms and Congressional intent. The EPA notes that this interpretation is currently subject to comment as part of the rulemaking implementing the acid rain provisions of the 1990 Amendments and EPA may address this issue further in the context of that proceeding.

Section 402(12), in relevant part, defines "repowering" as follows:

> Replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells or as determined

> by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of the date of enactment of the Clean Air Act Amendments of 1990 * * *

a. The definition thus provides for three major categories of repowering technologies:

(1) Technologies specifically listed in the statute;

(2) derivatives of one or more of these listed technologies; and

(3) technologies which:

(a) Are capable of controlling multiple combustion emissions simultaneously;

(b) with improved boiler or generation efficiency; and

(c) with significantly greater waste reduction than technologies in widespread commercial use as of the date of enactment of the CAA (November 15, 1990).

In accordance with the language of the statutory definition of repowering, the final rule provides that a qualifying repowering technology must involve "replacement" of an existing boiler. The language of § 402(12), though ambiguous in many significant respects, will not support an interpretation which fails to recognize that repowering requires use of an appropriate new technology instead of the existing boiler.

The EPA considered whether the reference to boiler replacement in § 402(12) could be read as referring to only the first category of technologies. However, such an approach would require reading the provision as if the recital of the three alternative technologies began immediately after the phrase "repowering means," rather than after the phrase "repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies:."

Such a reading is inconsistent with the structure of the provision, in which the colon, which is "used chiefly to

direct attention to matter that follows (as a list, explanation, or quotation)" [see Webster's Ninth New Collegiate Dictionary 266 (1985)], follows rather than precedes the reference to boiler replacement. Moreover, all three categories of technologies would be properly described as "the following clean coal technologies:."

While it is true that the list following the colon, like the phrase "the following clean coal technologies:" could be read to refer exclusively to the seven named technologies (or to those technologies and their approved derivatives), such an interpretation would still fail to provide a satisfactory explanation of the grammatical structure of the provision. Either of these two readings would fail to explain how the technologies that, according to those readings do not consider boiler replacement, relate to the term "repowering." In other words, if the concept of boiler replacement were removed from either the third category of technologies or from both the second and third categories, the provision would read, with respect to those categories:

> The term "repowering" means * * * a derivative of one or more of (the seven) technologies, and any other technology capable of (meeting the three performance criteria).

The difficulty with this reading is that "repowering," whatever the precise scope of its definition, clearly means doing something with a derivative technology or a multipollutant control technology, rather than simply those technologies themselves. Requiring boiler replacement for all three categories avoids this particular infirmity.

The EPA also considered another textual argument that could be advanced to support an interpretation of § 402(12) that boiler replacement is not required for the third category of technology, but it also is unpersuasive. It simply does not follow from the fact that the category of multipollutant control technologies alone has expressly enumerated performance criteria that those criteria are meant to be the exclusive test for qualifying technologies of these types. Because the third category of technology was intended to encompass types of technologies which were unknown on the date of enactment (and thus, unlike the prior categories, not susceptible to being enumerated in the

statute) that category would necessarily have to include explicit defining criteria, whether or not the boiler replacement criterion applied to it. By the same token, the fact that the latter two categories are subject to EPA approval in consultation with DOE does not imply that this is the only criterion applicable to them. Each is subject to additional criteria (i.e., the requirement of derivation in the case of the second category, and the three performance criteria in the case of the third category).

The pivotal phrase "replacement of an existing coal-fired boiler" is undefined in the statute, and its scope is not clearly delineated by its context. Some of the seven listed technologies may not require total boiler replacement, although all require such extensive changes to the boiler that they are tantamount to boiler replacement. Under the principle of ejusdem generis, therefore, the Agency clearly has, at a minimum, ample discretion to treat as functional boiler replacement any changes broadly similar in scope to those involved in installing the seven named technologies. Such a definition would clearly represent the lower, not the upper, limit on the Agency's discretion to give meaning to the term "replacement". Accordingly, the statute confers on EPA the additional discretion to define boiler replacement in a functional manner that takes into account achievement of the specified performance criteria as well as the degree of changes to the boiler. By way of example, elsewhere in today's final rule the Agency considers a unit to be "replaced" if it would "constitute a reconstructed unit within the meaning of 40 CFR 60.15." In accordance with the above language EPA will use the 40 CFR 60.15 test for "reconstruction" as general guidance in determining whether each individual application under § 409 involves sufficient replacement to qualify for a repowering extension and hence, an NSPS exemption.

In short, because "Congress has not directly spoken to the precise question at issue," Chevron, U.S.A. v NRDC, 467 U.S. 837, 842-43 (1984), EPA enjoys a significant measure of discretion to determine to what extent replacement of less than 100 percent of the parts of an existing boiler could be deemed replacement for purposes of § 402(12) and this rule. For the reasons discussed above, EPA believes the proposed regulatory language regarding repowering is reasonable. That proposal is today promulgated without change.

E. Clean Coal Technology Demonstration Projects and Very

Clean Units

1. Background.

The EPA also proposed rules implementing the new CCT exemption created by the 1990 Amendments. In this proposal, temporary CCT demonstration projects are defined as those CCT demonstration projects lasting 5 years or less. Title IV gives these projects an exemption from NSPS, PSD and nonattainment requirements. Id., § 415(b)(2). However, the facility would still be subject to any applicable SIP and must comply with any other requirements necessary to attain and maintain NAAQS. The EPA proposed to implement this provision and clarify that EPA considers the 5 year period as starting on the date of startup (as defined in 40 CFR 60.2). A temporary demonstration project may be converted to a permanent status at any time, provided it meets all the requirements that apply to a permanent CCT project criteria at the time of conversion.

Further, EPA proposed that at the end of a temporary project, the facility must be returned to pre-demonstration conditions and hourly emission rates (or lower). The return of the facility to its pre-demonstration physical and operational condition would not result in the loss of the actual emissions margin between pre-demonstration actual emissions rate and SIP-allowable emissions rates for that facility. Rather, the facility would be treated as if the temporary demonstration project had never occurred.

This proposal did not extend to emissions increases that are unrelated to the conduct of temporary demonstration projects. The EPA considers emissions increases (above the pre-demonstration levels) that are attributable to physical or operational changes, other than those necessary to restore that unit to its pre-demonstration condition, to be beyond the scope of the Congressional exemption.

The EPA also proposed to implement an exemption from NSPS and PSD requirements for repowering projects which are awarded funding from the DOE as permanent CCT demonstration projects (or similar projects funded by EPA) so long as potential emissions [see 52.21(b)(4)] from the unit do not increase as a result of the project [see § 415(b)(3)]. However, repowering projects that qualify as pollution control projects will be treated as other pollution control projects for the purposes of the nonattainment provisions of title I of the CAA.

Finally, the proposal implemented the statutory exemptions in § 415(c). In that section, Congress provided

an exemption from NSPS and PSD for the reactivation of "very clean units" otherwise in compliance with the CAA that had been shut down for at least the 2 years prior to enactment of the 1990 Amendments and that, prior to the shutdown, had been equipped with pollution controls with a removal efficiency of at least 85 percent for sulfur dioxide and 98 percent for particulates, and had been equipped with low-NOx burners. This exemption appears to have been narrowly tailored and is not expected to have widespread applicability.

2. Comments Generally Favoring the EPA Proposal.

Some commenters specifically mentioned that CCT demonstration projects should not be subject to NSR provisions.

3. Comments Generally Opposing the EPA Proposal.

Some commenters did not support the proposed blanket inclusion of all CCT projects as pollution control projects. One commenter suggested that each CCT project be reviewed on a case-by-case basis and, if the project results in higher emission levels, it should not be considered a pollution control project. Another commenter gave an example of a CCT project that converts an oil-fired unit to a higher emitting coal-fired unit, noting that this project should not be considered a pollution control project.

One commenter opposed to the pollution control project exemption questioned the very narrow exemption from NSPS and PSD for the reactivation of well-controlled, very clean units that had been shut down for at least 2 years prior to the enactment of the 1990 Amendments. If such exemptions are granted, the commenter urged EPA to include a condition that any reactivated sources perform an air quality impact assessment and demonstrate that they would not cause or contribute to a violation of NAAQS, PSD increments, or visibility standards.

4. Comments Suggesting Revisions to the Proposal.

a. The following suggestions were made with regard to the definition of "pollution control project":

(1) include all elements of CCT demonstration projects as an excluded project;

(2) add the words "clean coal technology" in the examples of pollution control projects in 40 CFR 51.165, 51.166, 52.21, and 53.24; and

(3) use the statutory definition of CCT demonstration project in 60.14(j)(1). The statutory definition omits the requirement that at least 20 percent of the funding for a

CCT demonstration project come from the Federal government.

5. The EPA Analysis.

After review of the public comments and further analysis of the subject provision, EPA has decided to promulgate the proposed rules implementing the CCT and very clean unit exemption created by the 1990 Amendments. The EPA views this action as merely incorporating into its existing regulatory framework statutory exemptions that were immediately effective upon passage of the 1990 Amendments. Please note that language inadvertently included in the proposed rules which purported to extend the exemption in § 415(c) to nonattainment areas has been deleted.

F. Calculation of NSPS Baseline

1. Background.

As discussed in the proposal, "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" is a modification for NSPS applicability purposes [see 40 CFR § 60.14(a)]. The NSPS regulations implementing this general definition focus on increases in hourly emissions, expressed in kilograms of pollutant discharged per hour. To determine if an increase in hourly emissions has occurred at a unit, a pre-change baseline must be established. Under current regulations, the emissions rate before and after a physical or operational change is evaluated at each unit by comparing the current hourly potential emissions at maximum operating capacity to hourly emissions at maximum capacity after the change. In this calculation, the reviewing authority disregards the unit's maximum design capacity. The original design capacity of a unit, to the extent it differs from actual maximum capacity at the time that the baseline is established due to physical deterioration of the facility, is immaterial to this calculation.

The EPA proposed that, for an existing electric utility steam generating unit, the pre-change baseline for NSPS applicability purposes shall be calculated using the highest hourly emissions rate achievable at any time during the 5 years prior to the change. The proposal retained the key concept in existing regulations that the baseline be determined during a period that is roughly contemporaneous with the proposed change at the affected facility. The EPA believes that the proposed revision, while modest, is still

necessary to avoid the current regulation's undue emphasis on the physical condition of the affected facility immediately prior to the change. The proposal's more flexible provision enables units to establish a baseline that is representative of its physical and operational capacity in recent years, while still precluding the use of a baseline tied to original design capacity, which as noted above may bear no relationship to the facility's capacity in recent years.

Without this revision, the NSPS regulations may unduly burden utilities undertaking physical or operational changes in conjunction with the acid rain program. For instance, if a unit has broken down and is in need of repairs, the utility's baseline will be artificially low. The proposed change would allow utilities to demonstrate that an earlier, higher capacity was more representative of the unit's maximum hourly emissions rate.

2. Comments Generally Favoring the EPA Proposal.

Several commenters noted that EPA's proposal will provide needed flexibility and alleviate uncertainty for nonroutine repair, replacement, and maintenance projects while still protecting local air quality. One commenter supported retention of the key concept of equating contemporaneous emissions with representative emissions.

3. Comments Generally Opposing the EPA Proposal.

One commenter opposing the proposal noted that the provision for the maximum hourly emissions achievable during the last 5 years would result in a significant relaxation of NSPS requirements and would allow utilities to upgrade equipment which may have lost significant generating capacity without the equipment being subject to NSPS. Sources that have been operating below their maximum achievable emission rates for the 5 years prior to the change can cause increases in actual hourly emission rates, inconsistent with the intent of the NSPS program. In addition, the change in the baseline will allow utilities such a extensive ability to make unregulated changes such as refurbishment, repowering or life-extension as to interfere with competition between existing units and new units.

4. Comments Suggesting Revisions to the Proposal.

The most frequent comment on this part of the proposal was that the rule should be clarified to say that the baseline should reflect the last 5 years of operation, to address units that have not been operating. In this regard, commenters were concerned about whether the approach will

ensure the establishment of past emission levels that are truly representative of normal source operations for utility units in cold storage for more than 5 years.

One commenter asked that the NSPS baseline [40 CFR 60.14(h)] be made consistent with the NSR pre-change baseline [40 CFR 52.21(b)(21)(ii)] by adding the phrase, "or other period deemed by the Administrator to be more representative of normal operation." One commenter remarked that if the rule cannot be changed to allow consideration of the past 5 years of operation, then EPA should select an alternative that would reflect a more representative baseline. In addition, some commenters asked for clarification that a unit may "net out" of NSPS requirements by switching to low sulfur coal.

5. The EPA Analysis.

After careful consideration of the comments received and further analysis of the subject provision, EPA has decided to promulgate the proposed revised methodology for calculating the pre-change baseline for NSPS applicability purposes for an existing electric utility steam generating unit. The amended methodology will use the highest hourly emissions rate achievable at any time during the 5 years prior to the change.

The revised methodology retains the key concept in existing regulations that the baseline be determined during a period that is roughly contemporaneous with the proposed change at the affected facility. The EPA believes that this decision to revise the current regulation will allow utilities flexibility regarding the scheduling of nonroutine repair, replacement, and maintenance projects. Also, the EPA believes that without this revision, the NSPS regulations may unduly burden utilities undertaking physical or operational changes in conjunction with the acid rain program. This change will allow utilities to demonstrate that an earlier, higher capacity was more representative of the unit's maximum hourly emissions rate.

The EPA did not agree with comments that the use of the maximum hourly emissions achievable during the last 5 years would result in a significant relaxation of NSPS requirements and allow utilities to upgrade equipment which may have lost significant generating capacity without the equipment being subject to NSPS. The promulgated change provides a more flexible provision enabling units to establish a baseline that is representative of their physical and operational capacity in recent years, while

still precluding the use of a baseline tied to original design capacity, which may bear no relationship to the facility's capacity in recent years.

The EPA did not agree with the comment that degree of flexibility granted utilities to make unregulated changes such as refurbishment, repowering or life-extension projects as a result of rule changes would interfere with competition between existing units and new units. The prior regulations allowed refurbishment, repowering or life-extension projects, provided emissions do not increase above the unit's current maximum hourly emissions rate. Both the prior and newly promulgated regulations require a unit that undergoes a refurbishment, repowering or life-extension project which increases emissions above the unit's actual current maximum hourly rate to be subject to NSPS. The promulgated regulation simply allows more flexibility in defining a unit's current capacity.

The EPA cannot agree with comments that the methodology for computing the NSPS baseline reflect the last 5 years of operation rather than the 5 years prior to the change. As discussed in conjunction the NSR baseline, the use of such a baseline would credit a unit which has been inoperable for 20 or 30 years, or longer, and in need of extensive nonroutine changes, with a emissions baseline that does not reflect current achievable levels of operations. The EPA notes, however, that the NSPS regulations have always allowed a dormant unit to demonstrate its current capacity in order to determine its emissions baseline. Thus an operable unit, or one in need of only routine maintenance or repair, which has been dormant for an extended period of time can still demonstrate its achievable capacity and associated emissions level by operating for a relatively short period of time.

A commenter requested that the NSPS baseline be revised to be consistent with the NSR pre-change baseline by adding the phrase, "or other period deemed by the Administrator to be more representative of normal operation." The EPA did not grant this request because it would change the emphasis of the NSPS program. As a technology-based program, the NSPS program examines maximum hourly emissions rates, expressed in kilograms per hour. Thus, emission increases for NSPS purposes are determined by changes in the hourly emissions rates at maximum physical capacity, regardless of how the unit has actually operated. In contrast, in light of the air quality planning component of the NSR program,

the NSR regulations examine total actual annual emissions to the atmosphere. Consequently, normal operations over a period of time is considered for purposes of determining a source's impact on ambient air. For NSR applicability determination purposes emissions increases are determined by changes in actual annual emissions as expressed in tpy.

Some commenters requested clarification on "netting out" of NSPS requirements by switching to low sulfur coal. The proposed regulatory changes were specifically limited to addressing the maximum achievable emissions at a specific point in time (i.e., immediately prior to the change versus achievable over the last 5 years) and not the parameters used in quantifying maximum hourly emissions. Today's rule does not alter current NSPS regulations on this point. Under those present NSPS regulations, only physical limitations on maximum capacity are considered in determining potential emissions at power plants. Thus, any prospective changes in fuel or raw materials accompanying the physical or operational change are not considered in determining maximum capacity.

G. Utility BACT Presumption for NOx.

1. Background.

The EPA proposed to adopt a presumption that, in the case of PSD permits issued by EPA under 40 CFR 52.21, BACT for emissions of NOx from existing coal-fired electric utility steam generating units undergoing a modification is the technology required under § 407 of the CAA.

2. Comments Generally Favoring the EPA Proposal.

Supporters of the low-NOx burner BACT presumption pointed to strong Congressional policy judgement favoring the use of "low-NOx burner technology." The BACT presumption should provide greater certainty and consistency to utilities, yet one supporter thought it would not limit the permitting authority's ability or obligation to consider other factors. One commenter noted that the BACT presumption establishes that low-NOx burners constitute reasonable available control technology (RACT) as well as BACT.

3. Comments Generally Opposing the EPA Proposal.

Concluding that the presumption is unwarranted, misguided, and possibly illegal, several opponents of the BACT presumption noted that it forecloses consideration of other NOx control technologies and ignores the demonstrated track record and cost-effectiveness of other technologies such as selective catalytic reduction (SCR) or selective

noncatalytic reduction. Commenters noted that SCR technology is in use in more than 200 power plants in six nations and can achieve twice the NOx reduction achievable by low-NOx burners. The SCR or other technologies more effective than low-NOx burners may be needed as retrofit requirements to attain the ozone standard.

Another comment voiced by opponents of the low-NOx burner BACT presumption, was that it cannot be reconciled with the statutory command for case-by-case decisions. The EPA does not have the right to make such a presumption and several instances were cited where EPA has upheld the case-by-case BACT determination process. The BACT presumption fails to recognize that there are site-specific considerations that will affect the selection of BACT.

Opponents of the BACT presumption also noted that such a presumption improperly shifts the burden of technology analysis to States at a time when they are overburdened. In addition, it will have an adverse effect on the ability of State and local agencies to control emissions to the degree necessary because it limits an agency's attainment strategies. Some of the northeastern States expressed concerns that such a presumption might interfere with efforts to attain the ozone standard.

4. The EPA Analysis.

Based upon a consideration of the comments received, and a reexamination of the relevant facts and statutory provisions, EPA has determined not to promulgate the presumption regarding BACT for NOx. The EPA is concerned that this presumption would suggest preemption of the exercise of State discretion and case-by-case decisionmaking which Congress envisioned as fundamental to the BACT process.

In light of its decision not to adopt a BACT low-NOx presumption, EPA will not respond to other objections and suggestions raised by commenters.

H. Applicability Determinations

As noted in the proposal, source owners or operators in most instances are able to readily ascertain whether NSR requirements apply to them. Consequently, in administering these requirements, EPA does not require sources to obtain a formal applicability determination before proceeding with construction. In keeping with that practice, EPA will not require utilities to seek applicability determinations under either the revised regulations promulgated today or the interpretations of existing regulations contained in this

preamble. Utilities in most cases can readily ascertain how this notice will affect them. The EPA anticipates, however, that questions will arise regarding certain aspects of this proposal. Because some instances involve discrete judgments, utilities may wish to obtain determinations of applicability. The EPA will provide such determinations upon request. Such requests should be submitted together with appropriate documentation to the appropriate permitting authority.

Comments regarding applicability determinations have previously been addressed in other sections of this rulemaking.

I. Limitation of the Rule to Electric Utilities.

1. Background.

Consistent with the proposed rule, the regulatory provisions promulgated today are limited to electric utility steam generating units. Such units are defined as any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more that 25 megawatts of electrical output to any utility power distribution system for sale. In the proposal, EPA indicated that it was limiting this rulemaking to electric utility steam generating units for two reasons. First, title IV of the CAA addresses acid precipitation and focuses exclusively on utility power plants. Today's ruling ensures that the title I and title IV programs will not impose conflicting requirements for those plants. The second reason that the provisions were limited to utilities is that EPA's extensive experience with electric utilities, the general similarity of equipment within the category, and the particular extent of publicly available information, indicate that a revision to the NSR applicability criteria for this source category is warranted.

2. Public Comments.

Several commenters noted that limitation of the proposal to electric utilities lacks rational justification as well as legal and technical support. Several noted that the limitation is unfair, arbitrary, and capricious. Typical of several letters, one commenter noted that EPA offered no qualitative evidence of underlying assumptions, and another noted that EPA violates the Administrative Procedures Act by limiting the proposal to electric utilities. To this commenter, the limitation discriminates against industrial sources and is not in line with the

intentions of the legislation. One commenter noted that the WEPCO court did not base its analysis on any particular characteristics of the utility industry.

Numerous commenters countered EPA's claim and justification for the limitation that the Agency has more experience with electric utilities than other industries. Illustrating that EPA has extensive experience with other industries, commenters mentioned chemical manufacturing, cement plants, refineries, paper mills, auto assembly plants, the 65 NSPS sources, and sources covered in numerous guideline documents and RACT guidance. In addition, several noted that the lack of understanding is a poor excuse for not applying the proposal to all industries.

Commenters also noted that other industries face the same problems that utilities do when attempting to install pollution control equipment. Like electric utilities, pollution control projects in other industries are generally environmentally beneficial, but the limitation of the exclusion to electric utilities as proposed would discourage the other source categories, from installing pollution control projects.

Several commenters noted that other industries will be equally impacted by extensive regulations under titles I, III, and V, just as electric utilities will be affected by title IV. For example, pharmaceutical plants will undergo physical and operational changes to meet reasonably available control technology (RACT) and/or maximum achievable control technology, and these projects should not be subject to NSR or NSPS. They note that the burden and supportive reasons for making the proposed changes are just as great for other categories of sources as they are for electric utilities.

Some commenters pointed out that EPA presently applies the pollution control project exemption from NSPS to all industries and that existing NSR rules are not industry-specific.

3. The EPA Analysis.

The EPA does not believe that this rule should be expanded at this time but will address this issue in a separate rulemaking. Specifically, EPA currently has underway a separate rulemaking which will consider the desirability of adopting for other source categories the NSR pollution control project exclusion and the changes to the methodology for determining whether a source change constitutes a modification that have been adopted today for

utilities. This rulemaking will also discharge EPA's obligation to propose and take final action on a potential-to-potential methodology as required by Exhibit B of the settlement agreement in Chemical Manufacturers Association v. EPA (D.C. Cir., No. 79-1112). The EPA presently intends to propose these NSR revisions by early summer.

Prior to proposal of this rule, EPA considered going forward with a rule that applied to all source categories. However, the complexity of that task meant that a rule could not be developed in a short time frame, a fact that posed unique and serious difficulties for one source category, utilities. While the commenters favoring expansion of this rule to all source categories are accurate in their claims that sources outside utilities face CAA-mandated pollution control projects, utilities alone are singled out to participate in the 1990 Amendments' new acid rain program. This program requires that units subject to phase I of the program meet SO2 reduction limits by 1995. Given the size, complexity, and expense of scrubbers and other SO2 pollution control technologies, the affected utilities need guidance today as to the title I implications of their control strategies. While other sources may soon have new control requirements imposed on them, utility sources face the most immediate need for clarification of their NSR responsibilities.

In addition, EPA also had high confidence that a workable "future-actual" methodology could be developed for the utility industry for all changes that did not involve construction of a new unit or replacement of an existing unit. The source population is relatively small and the technology in use is relatively uniform. Moreover, utility sources are largely regulated by PUC's which evaluate anticipated utility growth as part of the regulatory oversight process. The fact of Public Utility Commission (PUC) review helps ensure the reliability of utility projections of future operating conditions. The EPA anticipates that NSR permitting authorities will be able to draw upon PUC proceedings in evaluating utility claims of future utilization.

In addition, the emissions monitoring provisions of title IV requires that continuous emissions monitoring data or other highly accurate methods for reporting actual emissions will be used for all affected sources. This will assure that actual emissions data will be readily available for utility sources subject to today's rule. In the

rulemaking which EPA intends to undertake by early summer, EPA will address the precise applicability of the pollution control project exclusion and of the actual to future actual methodology to non-utility source categories.

III. Administrative Requirements

A. Executive Order (E.O.) 12291.

Under E.O. 12291, EPA must judge whether a regulation is a "major rule" and therefore subject to the requirement for preparation of a Regulatory Impact Analysis. This ruling is not a major rule because it will reduce the economic costs of meeting the requirements of the CAA. However, this ruling was submitted to the Office of Management and Budget (OMB) for review. Written comments from OMB to EPA and any EPA response are included in Docket A-90-06.

B. Paperwork Reduction Act.

The proposal package stated that no additional public reporting burden will result from this ruling. That is still the case despite final rule requirements for reporting certain data to agencies for 5 years following a change and for documenting excluded demand growth, because this information is already required by other provisions of the law and the final rule in doing so is providing exclusions for the affected sources and the net result is a decrease in these source's public reporting burden. All information collection requirements of the Federal NSR and NSPS regulations have been approved by OMB under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501, et seq., and have been assigned OMB control numbers 2060-0003 for NSR, and 2060-0023, 2060-0026 and 2060-0072 for NSPS. The effect of this rule would be a reduction in paperwork related to complying with NSR and NSPS requirements, since this ruling provides additional clarification as to physical and operational changes that may be excluded from these requirements.

C. Economic Impact Assessment

The requirement for performing an Economic Impact Assessment under § 317 of the CAA (42 U.S.C. 7617), does not apply to the amendments EPA is promulgating today. Section 317 applies only to "revisions which the Administrator determines to be substantial revisions." The promulgated amendments are not substantial revisions because they relieve current regulatory burdens.

D. Regulatory Flexibility Act Certification.

As noted in the proposal notice, this action is not

subject to the certification provisions of § 605(b) of the Regulatory Flexibility Act because this rule will result in a reduction of administrative costs and no increase in control costs, therefore having no significant impact on industry.

E. Effective Date.

As stated earlier in this notice, this rule is effective immediately upon publication in the FEDERAL REGISTER. The EPA has concluded that, under § 307(d)(1) of the CAA, the requirement of sec. 4(d) of the Administrative Procedures Act, 5 U.S.C. 553(d), for a 30-day waiting period before making a rule effective is not applicable.

F. Federalism Implications.

Under E.O. 12612, EPA must determine if a rule has federalism implications (i.e., substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government). For those rules which have federalism implications, a Federalism Assessment is to be made. The EPA's determination is that there are no federalism implications; these are relatively minor changes to existing Federal law and regulations.

The executive order also requires that agencies, to the extent possible, refrain from limiting the State policy options, consult with States prior to taking any actions that would restrict State policy options, and take such actions only when there is clear constitutional authority and the presence of a problem of national scope. The executive order provides for preemption of State law, however, if there is a clear congressional intent for the agency to do so. Any such preemption, however, is to be limited to the extent possible Since the rule is a direct effort to ensure implementation of the 1990 Amendments, EPA considers all of the above requirements to be met.

Lists of Subjects in 40 CFR parts 51, 52, and 60

Administrative practice and procedure, Intergovernmental relations, Air pollution control, NSR, Clean Coal Technology projects, Sulfur oxides, Nitrogen dioxide, Particulate matter, Carbon monoxide, Hydrocarbons, Lead, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds, Lead, Repowering, NSPS.

Dated: May 20, 1992 _____

William K. Reilly
Administrator

For the reasons set forth in the preamble, part 51 of Chapter I of title 40 of the code of Federal Regulations is amended as follows:

Part 51 - REQUIREMENTS FOR PREPARATION, ADOPTION, AND SUBMITTAL OF IMPLEMENTATION PLANS.

1. The authority citation for part 51 is revised to read as follows:

Authority: 42 U.S.C. 7401(b)(1), 7410, 7411, 7470-7479, 7491, 7501-7508, 7601 and 7602, as amended by the 1990 Amendments, Pub. L. No. 101-549, 104 Stat. 2399 (Nov. 15, 1990); 402, 409, 415 of the CAA as amended, 104 Stat. 2399, unless otherwise noted.

2. Section 51.165 is amended to read by adding (a)(1)(v)(C)(8) and (9).

51.165 Permit requirements.

(a) * * *

(1) * * *

(v) * * *

(C) * * * * * *

(8) The addition, replacement or use of a pollution control project at an existing electric utility steam generating unit, unless the reviewing authority determines that such addition, replacement, or use renders the unit less environmentally beneficial, or except:

(i) when the reviewing authority has reason to believe that the pollution control project would result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area conducted for the purpose of title I, if any, and

(ii) the reviewing authority determines that the increase will cause or contribute to a violation of any national ambient air quality standard or PSD increment, or visibility limitation.

(9) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:

(i) the State implementation plan for the State in which the project is located, and

(ii) other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated.

* * * * *

(xii) * * *

(a)(1)(xii)(D) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (E) of this section) which has not begun normal operations on the particular date, actual emissions shall equal the potential-to-emit of the unit on that date.

(E) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit, provided the source owner or operator maintains and submits to the reviewing authority, on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by the reviewing authority if it determines such a period to be more representative of normal source post-change operations.

* * * * *

(xx) Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also

considered in determining the electrical energy output capacity of the affected facility.

(xxi) Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the 2-year period after a physical change or change in the method of operation of a unit, (or a different consecutive 2-year period within 10 years after that change, where the reviewing authority determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the reviewing authority shall:

(A) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and

(B) exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.

(xxii) Temporary clean coal technology demonstration project means a CTT demonstration project that is operated for a period of 5 years or less, and which complies with the SIP for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated.

(xxiii) Clean coal technology means any technology,

including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

(xxiv) Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology,' up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(xxv) "Pollution control project" means any activity or project at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

(A) The installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls and electrostatic precipitators;

(B) an activity or project to accommodate switching to a fuel which is less polluting than the fuel used prior to the activity or project, including, but not limited to natural gas or coal re-burning, or the co-firing of natural gas and other fuels for the purpose of controlling emissions;

(C) a permanent clean coal technology demonstration project conducted under title II, sec. 101(d) of the Further Continuing Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United States Code), or subsequent appropriations, up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency; or

(D) a permanent clean coal technology demonstration project that constitutes a repowering project.

3. Section 51.166 is amended by revising to read as follows:

51.166 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(2) * * *

(iii) * * *

(h) the addition, replacement or use of a pollution control project at an existing electric utility steam generating unit, unless the Administrator determines that such addition, replacement, or use renders the unit less environmentally beneficial, or except:

(i) when the reviewing authority has reason to believe that the pollution control project would result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area conducted for the purpose of title I, if any, and

(2) the reviewing authority determines that the increase will cause or contribute to a violation of any national ambient air quality standard or PSD increment, or visibility limitation.

(i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:

(1) The State implementation plan for the State in which the project is located; and

(2) other requirements necessary to attain and maintain the national ambient air quality

standards during the project and after it is terminated.

(j) The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, provided that the project does not result in an increase in the potential-to-emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit.

* * * * *

(21) * * *

(iv) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (b)(21)(v) of this section) which has not begun normal operations on the particular date, actual emissions shall equal the potential-to-emit of the unit on that date.

(v) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change, provided the source owner or operator maintains and submits to the reviewing authority, on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by the reviewing authority if it determines such a period to be more representative of normal source post-change operations.

(30) Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW

electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

(31) Pollution control project means any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

(i) The installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls and electrostatic precipitators;

(ii) an activity or project to accommodate switching to a fuel which is less polluting than the fuel used prior to the activity or project, including but not limited to natural gas or coal re-burning, or the co-firing of natural gas and other fuels for the purpose of controlling emissions;

(iii) a permanent clean coal technology demonstration project conducted under title II, sec. 101(d) of the Further Continuing Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United States Code), or subsequent appropriations, up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency, or

(iv) a permanent clean coal technology demonstration project that constitutes a repowering project

(32) Representative actual annual emissions means the

average rate, in tons per year, at which the source is projected to emit a pollutant for the 2-year period after a physical change or change in the method of operation of a unit, (or a different consecutive 2-year period within 10 years after that change, where the reviewing authority determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the reviewing authority shall:

(i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and

(ii) exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.

(33) Clean coal technology means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

(34) Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a

total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(35) Temporary clean coal technology demonstration project means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during and after the project is terminated.

(36)(i) Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990.

(ii) Repowering shall also include any oil and/or gas-fired unit which as been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

(iii) The reviewing authority shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection and is granted an extension under § 409 of the Clean Air Act.

(37) Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(i) Has not been in operation for the 2-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(ii) was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(iii) is equipped with low-NOx burners prior to the time of commencement of operations following reactivation; and

(iv) is otherwise in compliance with the requirements of the Clean Air Act.

For the reasons set forth in the preamble, part 52 of Chapter I of title 40 of the Code of Federal Regulations amended as follows:

Part 52-APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 is revised to read as follows:

Authority: 42 U.S.C. 7401-7642 as amended by the Clean Air Act Amendments of 1990, Pub L. No. 101-549, 104 Stat. 2399 (Nov. 15, 1990), unless otherwise noted.

2. Section 52.21 is amended to read as follows:

52.21 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(2) * * *

(iii) * * * *
* * * * *

(h) the addition, replacement or use of a pollution control project at an existing electric utility steam generating unit, unless the Administrator determines that such addition, replacement, or use renders the unit less environmentally beneficial, or except:

(1) when the Administrator has reason to believe that the pollution control project would result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area conducted for the purpose of title I, if any, and

(2) the Administrator determines that the increase will cause or contribute to a violation of any national ambient air quality

standard or PSD increment, or visibility limitation.

(i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:

(1) the State implementation plan for the State in which the project is located, and

(2) other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(j) The installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, provided that the project does not result in an increase in the potential to emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis.

(k) The reactivation of a very clean coal-fired electric utility steam generating unit.

* * * * *

(21) * * *

(iv) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (b)(21)(v) of this section) which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.

(v) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit,

provided the source owner or operator maintains and submits to the Administrator, on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by the Administrator if he determines such a period to be more representative of normal source post-change operations.

(31) Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

(32) Pollution control project means any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

(i) the installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls and electrostatic precipitators;

(ii) an activity or project to accommodate switching to a fuel which is less polluting than the fuel in use prior to the activity or project, including, but not limited to natural gas or coal re-burning, or the co-firing of natural gas and other fuels for the purpose of controlling emissions;

(iii) a permanent clean coal technology demonstration project conducted under title II, sec. 101(d) of the Further Continuing

Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United States Code), or subsequent appropriations, up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency; or

(iv) a permanent clean coal technology demonstration project that constitutes a repowering project.

(33) Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the 2-year period after a physical change or change in the method of operation of a unit, (or a different consecutive 2-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:

(i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and

(ii) exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.

(34) Clean coal technology means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

(35) Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(36) Temporary clean coal technology demonstration project means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(37)(i) Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of

November 15, 1990.

(ii) Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

(iii) The Administrator shall give expedited consideration to permit applications for any source that satisfies the requirements of this subsection and is granted an extension under § 409 of the Clean Air Act.

(38) Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(i) has not been in operation for the 2-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(ii) was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(iii) is equipped with low-NOx burners prior to the time of commencement of operations following reactivation; and

(iv) is otherwise in compliance with the requirements of the Clean Air Act.

3. Section 52.24 is amended by revising to read as follows:

52.24 Statutory restriction on new sources.

* * * * *

(f) * * *

(5) * * *

(iii) * * *

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(h) the addition, replacement or use of a pollution control project at an existing electric utility steam generating unit, unless the Administrator determines that such addition, replacement, or use renders the unit less environmentally beneficial, or except:

(1) when the Administrator has reason to believe that the pollution control project would result in a significant net increase in representative actual annual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis in the area conducted for the purpose of title I, if any, and

(2) the Administrator determines that the increase will cause or contribute to a violation of any national ambient air quality standard or PSD increment, or visibility limitation.

(i) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:

(1) the State implementation plan for the State in which the project is located, and

(2) other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

* * * * *

(13) * * *

(iv) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (f)(13)(v) of this subsection) which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.

(v) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following the physical or operational change shall equal the representative actual annual emissions of the unit, provided the source owner or operator maintains and submits to the Administrator, on an annual basis for a period of 5 years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase. A longer period, not to exceed 10 years, may be required by the Administrator if he determines such a period to be more representative of normal source post-change operations.

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(19) Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

(20) Representative actual annual emissions means the average rate, in tons per year, at which the source is projected to emit a pollutant for the 2-year period after a physical change or change in the method of operation of a unit, (or a different consecutive 2-year period within 10 years after that change, where the Administrator determines that such period is more representative of normal source operations), considering the effect any such change will have on increasing or decreasing the hourly emissions rate and on projected capacity utilization. In projecting future emissions the Administrator shall:

(i) Consider all relevant information, including but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act; and

(ii) exclude, in calculating any increase in emissions that results from the particular physical change or change in the method of operation at an electric utility steam generating unit, that portion of the unit's emissions following the change that could have been accommodated during the representative baseline period and is attributable to an increase in projected capacity utilization at the unit that is unrelated to the particular change, including any increased utilization due to the rate of electricity demand growth for the utility system as a whole.

(21) Temporary clean coal technology demonstration project means a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plans for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(22) Clean coal technology means any technology, including technologies applied at the precombustion, combustion, or post combustion stage, at a new or existing facility which will achieve significant reductions in air emissions of sulfur dioxide or oxides of nitrogen associated with the utilization of coal in the generation of electricity, or process steam which was not in widespread use as of November 15, 1990.

(23) Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency. The Federal contribution for a qualifying project shall be at least 20 percent of the total cost of the demonstration project.

(24) "Pollution control project" means any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

(i) the installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide and nitrogen oxides controls and electrostatic precipitators;

(ii) an activity or project to accommodate switching to a fuel which is less polluting than the fuel in use prior to the activity or project including, but not limited to natural gas or coal re-burning, co-firing of natural gas and other fuels for the purpose of controlling emissions;

(iii) a permanent clean coal technology demonstration project conducted under title II, sec. 101(d) of the Further Continuing Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United States Code), or subsequent appropriations, up to a total amount of $2,500,000,000 for commercial demonstration of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency; or

(iv) a permanent clean coal technology demonstration project that constitutes a repowering project.

For the reasons set forth in the preamble, part 60 of Chapter I of title 40 of the Code of Federal Regulations is amended as follows:

PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 is revised to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7414, 7416, and 7601 as amended by the Clean Air Act Amendments of 1990, Pub. L. 101-549, 104 Stat. 2399 (Nov. 15, 1990; 402, 409, 415 of the Clean Air Act as amended, 104 Stat. 2399, unless otherwise noted.

2. Section 60.2 is amended by adding the following definitions:

§ 60.2 Definitions.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of $2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Electric utility steam generating unit means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the

Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) has not been in operation for the 2-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;

(3) is equipped with low-NOx burners prior to the time of commencement of operations following reactivation; and

(4) is otherwise in compliance with the requirements of the Clean Air Act.

3. Section 60.14 is amended by adding (h)-(r) to read as follows:

60.14 MODIFICATION.

* * * * *

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the

maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(j)(1) Repowering projects that qualify for an extension under § 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(2) This exemption shall not apply to any new unit that:

(i) is designated as a replacement for an existing unit;

(ii) qualifies under § 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under § 405 of the Clean Air Act; and

(iii) is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A temporary clean coal control technology demonstration project, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during

the project and after it is terminated.

(l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

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