Friday June 14, 1991 FR Vol. 56, No 115 page 27630

ENVIRONMENTAL PROTECTION AGENCY

40 C.F.R. Parts 51, 52, and 60

[FRL ---------]

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: Notice of Proposed 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 Clean Air Act Amendments (CAAA). 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 requirements of Title I. In particular, New Source Review (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 proposed 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 proposing clarifying amendments to these regulations and confirming its policies regarding of some of these provisions as they apply to utility projects pending adoption of the proposed amendments.

The EPA today proposes to adopt a broad NSR exclusion for

utility pollution control projects and, until these proposed regulations are adopted in final form, to adhere to its policy that new source regulations already generally exclude coverage of pollution control projects undertaken at electric utility units. Similarly, EPA today proposes to adopt 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 new source review under either prevention of significant deterioration (PSD) or nonattainment provisions and to maintain in the interim that this methodology is applied where the unit has "begun normal operations." For those utility projects which undergo PSD new source review, today's notice proposes a presumption that for EPA-issued permits, "low-NOx burners" can satisfy the best available control technology (BACT) requirements.

In addition, EPA also proposes to modify 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. The EPA also proposes to modify 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: Comments. Comments on the revisions proposed today must be received on or before August 19, 1991.
Public Hearing. A public hearing is scheduled for 10:00 a.m., July 19, 1991, at the U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The hearing may be canceled if no speakers have requested time to present their comments 15 days prior to the scheduled hearing date. Written comments in lieu of testimony are encouraged. For further information contact JoAnn Allman at (919) 541-5591.

ADDRESSES: Supporting information used in developing this proposed rule is contained in docket A-90-06. This docket is available for public inspection and copying between 8:30 a.m. and 3:30 p.m., weekdays at EPA's Air Docket (LE-131), Room M-1500, 401 M Street S.W., Washington, D.C. 20460. A reasonable fee may be charged for copying.
FOR FURTHER INFORMATION CONTACT: Chebryll Edwards, New Source Review Section (MD-15), Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, (919) 541-2343.

SUPPLEMENTARY INFORMATION:

I. INTRODUCTION

The EPA today proposes to amend its regulations implementing the various Title I new source requirements governing physical or operational changes at electric utility generating units. Specifically, these proposed changes are being issued to clarify the coverage of the NSPS, PSD and nonattainment preconstruction review requirements of Title I of the Clean Air Act to projects undertaken at electric utility steam generating units. Footnote 1.

The EPA proposes to amend the definition of "major modification" in 40 C.F.R. 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 proposes in PSD and nonattainment areas to adopt 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 proposing to amend its PSD and nonattainment new source review regulations (40 C.F.R. 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 sections 409 and 415 of Title IV of the Clean Air Act Amendments of 1990 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 proposing to amend its NSPS regulations (40 C.F.R. 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. To the extent the proposed amendments implement existing EPA policies, EPA will continue to administer its regulations in a manner consistent with these policies pending adoption of the regulations proposed today. Portions of the premable of today's proposal set forth EPA's present policies under its current regulations, and may be relied on as such pending final action on today's proposal.

Today's proposal addressing pollution control projects and other non-routine physical and operational changes at electric utility units is timely for several reasons. First, the 1990 Clean Air Act 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 new source review 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.

II. BACKGROUND

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

Title I of the Clean Air Act 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 Clean Air Act required EPA to promulgate technology-based new source performance standards 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. Clean Air Act ("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 Clean Air Act. These changes included preconstruction permitting requirements for major new and modified sources under two programs, prevention of significant deterioration (PSD) and nonattainment new source review (respectively, Parts C and D of the Clean Air Act). 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 "best available control technology (BACT)," which must be at least as stringent as any applicable NSPS or hazardous pollutant standard under section 112 of the Act.

Part D of the 1977 Amendments applies to nonattainment areas, i.e., those areas which have not met the NAAQS under section 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. Footnote 3

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 section 111(a)(4) of the Act. 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. Footnote 4. 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. Footnote 5. 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). Footnote 6.

C. Step One: Physical or Operational Change

The EPA has always recognized that the definition of physical or operational change in section 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 C.F.R. 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 C.F.R. 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 C.F.R. 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. 40 C.F.R. 60.14(b)(2).

Absent the exclusions from modifications specified at 40 C.F.R. 60.14(e), any increase in emissions to the atmosphere over the previous emissions rate will subject the unit to NSPS. See 40 C.F.R. 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 C.F.R. 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 Act." 40 C.F.R. 52.21(b)(2)(i), 52.24(f)(5). Footnote 7. 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. 40 C.F.R. 52.21(b)(3)(i). Footnote 8.

Applicability of the Act's new source review 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 tons per year, 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." 40 C.F.R. 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 Fed. Reg. 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." 40 C.F.R. 52.21(b)(21)(iv). This approach is referred to as the actual to potential methodology. This regulatory provision may be overcome -- and new source review will not apply -- if the source owner agrees, in a federally enforceable instrument -- not to increase its actual emissions above baseline levels. See e.g., 40 C.F.R. 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. 40 C.F.R. 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. 40 C.F.R. 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 proposes to change 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 [Footnote 9] with several kilns sought to convert one "wet" kiln into a "dry" kiln, and to combine that kiln with another kiln. 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.'" 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." Footnote 10.

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 proposing to revise 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. Pending final adoption of this new rule, EPA will continue to

apply an actual-to-actual test to units that undertake "like-kind replacements" and other units which are found to have "begun normal operations."

F. The Clean Air Act Amendments of 1990

1. New Source Review and the Acid Rain Provisions

The Clean Air Act Amendments of 1990, Pub L. No. 101-549, 104 Stat. 2399 (Nov. 15, 1990), made numerous changes in the nonattainment provisions of the Clean Air Act 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 new source review. 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 new source review requirements of Title I. In particular, New Source Review (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 proposed 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 CCT 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 proposal also implements an exemption from new source requirements for CCT demonstration projects created by Congress in section 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. Footnote 11.

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 C.F.R. 52.21(b)(4)) from the unit do not increase as a result of the project. CAA § 415(b)(3). These funded projects may still be required to comply with the nonattainment NSR provisions of Title I of the Act, 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 section 415(c), Congress provided an exemption from NSPS and PSD for the reactivation of "very clean units"

otherwise in compliance with the Act 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

A. Pollution Control Projects

1. Proposed Regulatory Changes for Pollution Control Projects

The EPA proposes 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 new source review 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 new source review. Footnote 12.

The EPA is today proposing 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 today's proposal, a utility pollution control project will not be treated as a physical or operational change unless the project renders the unit less environmentally beneficial.

As indicated above, 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 is today issuing 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 Act, 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.

40 C.F.R. 60.14(e)(5). In 1978, EPA noted that "in adding section 169(2)(c) to the Act, Congress indicated that it intended to conform the meaning of 'modification' to 'usage in other parts of the Act.' 123 Congr. Rec. H11955, 11957 (Nov. 1, 1977)." 43 Fed. Reg. 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.

As discussed in greater detail in a subsequent section, 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 new source review 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 C.F.R. 60.15(e)(5). With respect to new source review, today's proposal adopts 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 new source review regulations, today's ruling 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.

For the purposes of this proposal, 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 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 this proposal. Such changes are addressed elsewhere in this proposal. 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 will not extend to source categories other than electric utility steam generating units. The EPA has 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 has led EPA to conclude that pollution control projects in the utility industry are generally environmentally beneficial.

2. Additional Modeling Requirements

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 national ambient air quality standard, 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 National Ambient Air Quality Standards (NAAQS), increment or visibility limitation. For this reason, under today's proposal, 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.

3. The EPA's Existing Policy Regarding pollution Control Projects

As noted above, generally pollution control projects at existing stationary sources are not major modifications subject to new source review 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 currently applies its PSD regulations in harmony with its NSPS regulations, which exclude most pollution control projects. See 40 C.F.R. 60.14(e)(5). In 1977, Congress incorporated the NSPS definition of modification into the PSD and nonattainment statutes. 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. [Footnote 13] 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. [Footnote 14] 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. [Footnote 15] In light of the Title IV requirements and other provisions of the Clean Air Act Amendments of 1990, EPA confirms that it will continue to consider the overall environmental consequences of pollution control projects for NSR applicability on an interim basis pending final action on the proposed regulatory exclusion for pollution control projects. 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. Representative Actual Annual Emissions

As described above, EPA proposes to revise its methodology for calculating emissions increases at electric utility steam generating sources. The EPA proposes 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. Under today's action, EPA proposes to consider a unit to be replaced if it would constitute a reconstructed unit within the meaning of 40 C.F.R. 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 today, 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 tons per year, 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 C.F.R. 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 Fed. Reg. 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 proposes today to retain this regulatory language, but to adopt a new presumption regarding its implementation.

Under today's action, the Administrator will 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 C.F.R. 52.21(b)(3)(i)(b). [Footnote 16] 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. Footnote 17

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. [Footnote 18] 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 today proposes 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.

C. The Causation Requirement

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 C.F.R. 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 today proposes to amend its rules to clarify this provision in the context of modifications at electric utility steam generating units.

Under these 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. Today's proposal makes clear 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 this proposal, 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 but for the proposed physical or operational change should be considered to result from the change.

D. Repowering

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. 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." § 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 today proposes rules that provide 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 applies 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 C.F.R. 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 section 409(e), EPA will provide expedited NSR processing for repowering projects and will encourage State permitting authorities to do the same.

E. Clean Coal Technology Demonstration Projects

Today's notice also proposes rules implementing the new CCT exemption created by the 1990 Amendments. For the purposes of 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. This ruling proposes to implement this provision and clarifies that EPA considers the 5 year period as starting on the date of startup (as defined in 40 C.F.R. 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 proposes 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. [Footnote 19]

This proposal does 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.

Today's action also proposes 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. § 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 Act.

Finally, today's proposal would implement the statutory exemptions in section 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 Act 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.

Because these proposed rules merely implement straight-forward statutory exemptions that were immediately effective upon passage of the 1990 Amendments, EPA intends, as a matter of statutory interpretation, to follow the policies set forth in today's proposal pending final action.

F. Calculation of NSPS Baseline

As discussed in section II of this notice, "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 C.F.R. § 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. [Footnote 20] 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. Today EPA is proposing 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. This proposal 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 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. Today'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 will allow utilities to demonstrate that an earlier, higher capacity was more representative of the unit's maximum hourly emissions rate.

G. Utility BACT Presumption for NOx

In today's notice, EPA proposes to adopt a presumption that, in the case of PSD permits issued by EPA under 40 C.F.R. 52.21, best available control technology (BACT) for emissions of nitrogen oxides from existing coal-fired electric utility steam generating units undergoing a modification is the technology required under section 407 of the Clean Air Act. In general, this will call for the use of combustion modification and/or low-NOx burners or similar, cost-effective technologies by those utilities required to obtain PSD permits for NOx emissions following final action on today's proposal.

In brief, section 407 requires most utility units subject to phase I and phase II to meet NOx emission limitations on the same date as the phase I or phase II SO2 emission limitations become effective. The Administrator must establish annual emission limitations (based on rates listed in the section) for tangentially-fixed boilers and dry bottom wall-fired boilers within 18 months of enactment. These limitations must be achievable with low-NOx burner technology. CAA § 407(b)(1). The Administrator must promulgate annual emission limitations for all other boilers by January 1, 1997, based on a "best system of continuous emission reduction . . . which is comparable to the cost of" low-NOx burners. By the same date, the Administrator may make the rates for boiler types identified in section

407(b)(1) more stringent if more effective low-NOx burner technology is available. CAA § 407(b)(2).

Low-NOx burners are commercially available and can be retrofitted on many boiler types, providing a high degree of emissions reduction at relatively low costs. Depending on boiler type, low-NOx burners can reduce emissions of NOx by approximately 20 to 60 percent. Again depending on boiler type and other factors, the cost of replacing conventional burners with these controls is in the range of $8.00 to $16.00 per kilowatt.

Other NOx control technologies are being developed for retrofitted use on at least some coal-fired electric utility units, and thus can provide a much greater degree of emissions reductions. These include selective noncatalytic reduction (SNCR or "thermal de-NOx") and selective catalytic reduction (SCR). (In addition, DOE has funded two new technologies under its CCT demonstration program which are designed for the simultaneous removal of SO2, NOx and particulate matter that may become commercially "available" in the future.) [Footnote 20] However, SNR and SNCR are not in use in this country as retrofit technologies for coal-fired boilers, and the DOE sponsored projects have not yet been demonstrated. Current estimates of control costs for these technologies are much higher than for low-NOx burners, especially when considered in the context of retrofitting existing units.

The EPA has in the past issued guidance documents effectively creating presumptions that certain technologies constituted BACT for certain source categories. See Memorandum, Operation Guidance on Control Technology for New and Modified Municipal Waste Combustors, from Gerald A. Emison, Director, Office of Air Quality Planning and Standards, EPA, June 26, 1987, p. 5. The EPA believes it is appropriate to propose to do so here as well in the case of low-NOx burners for modified coal-fired utility boilers in light of the strong congressional policy judgment favoring use of that technology for acid rain control reflected in section 407.

Section 169(3) of the Act, 42 U.S.C. 7479(3) defines BACT as:

> an emissions limitation based on the maximum degree of reduction of each pollutant subject to regulation under the Clean Air Act emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts

> and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant. In no event shall application of "best available control technology" result in emissions of any pollutants which will exceed the emissions allowed by an applicable standard established pursuant to section 7411 or 7412 of this title. Emissions from any source utilizing clean fuels, or any other means, to comply with this paragraph shall not be allowed to increase above levels that would have been required under this paragraph as it existed prior to enactment of the Clean Air Act Amendments of 1990.

The BACT provision reflects congressional intent both to grant permitting authorities broad discretion to weigh the statutory factors as they see fit in reaching a final substantive determination on BACT and to create a procedural methodology that would provide a mechanism for stimulating the widespread use of effective pollution control technologies. [Footnote 21]

The EPA believes that today's proposed presumption is consistent with BACT requirements because it does not purport to relieve the permitting authority of the obligation to weigh the statutory factors in reaching BACT determinations. Rather, it reflects an exercise of policy judgment by EPA where it is the permitting authority that in most cases a BACT analysis of currently demonstrated technologies for retrofitting existing utility boilers would lead to the selection of low NOx burners and/or combustion modifications identified in section 407(b)(1).

Although EPA has authority under the present regulations to create this presumption regarding BACT for NOx, EPA is soliciting comment prior to adopting such a presumption in order to obtain the views of the public on the policy conclusions discussed above.

This proposed presumption would not apply in States with PSD programs that have been incorporated into state implementation plans under regulations promulgated at 40 C.F.R. 51.166. However, such States are encouraged to adopt this presumption as a matter of state policy.

H. Applicability Determinations

In most instances, source owners or operators are able to readily ascertain whether new source review 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 proposed 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.

IV. ADMINISTRATIVE REQUIREMENTS

A. Docket

A docket has been established for this action under section 307(d)(1)(I) and (N) of the Clean Air Act, 42 U.S.C. 7607(d)(1)(I) and (N). The docket is an organized and complete file of all information considered in the development of this ruling. The docket is intended to allow the public to identify and locate documents related to this ruling. The docket number for this ruling is A-90-06.

B. Paperwork Reduction Act

No additional public reporting burden will result from this ruling. All information collection requirements of the Federal NSR and NSPS regulations have been approved by the Office of Management and Budget (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 operation changes that may be excluded from these requirements.

C. OMB Review

Under Executive Order 12291 (E.O. 12291), EPA must judge whether a rule is "major" and therefore subject to the requirement of a regulatory impact analysis (RIA). This ruling is a major rule. However, EPA has not prepared an RIA because it will not result in any signification adverse environmental effects and will reduce the economic costs of meeting the

requirements of the CAA. This ruling was submitted to the OMB for review as required by E.O. 12291. Any written comments from OMB to EPA and any EPA response to those comments are included in Docket A-90-06.

D. Effective Date

Section 4(d) of the Administrative Procedures Act (APA), 5 U.S.C. 553(d), requires a 30-day waiting period before making a substantive rule effective. Since the regulatory revisions being proposed today are considered substantive, they are subject to the notice-and-comment requirements of the APA and will become effective only after public comments have been received and considered, and final action has been taken. The portions of this notice that merely confirm EPA policy are effective immediately.

E. Regulatory Flexibility Act

This action is not subject to the certification provisions of section 605(b) of the Regulatory Flexibility Act (RFA) because this rule will result in a reduction of administrative costs and no increase in control costs, therefore having no significant impact on industry. List of Subjects

40 C.F.R. Part 51

Administrative procedure and practices, intergovernmental relations, air pollution control, NSR, Clean Coal Technology projects, sulfur oxides, nitrogen dioxide, particulate matter, carbon monoxide, hydrocarbons, lead.

40 C.F.R. Part 52

Air pollution control, NSR, Clean Coal Technology projects, repowering, sulfur oxides, particulate matter, nitrogen dioxide, carbon monoxide, hydrocarbons, lead.

40 C.F.R. Part 60

Air pollution control, NSPS, Clean Coal Technology projects, repowering,, sulfur oxides, particulate matter, nitrogen dioxide, carbon monoxide, hydrocarbons, lead.

Dated: June 4, 1991

_____

William K. Reilly,

Administrator

Footnotes

1. The proposed regulations define electric utility steam generating units 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 than 25 MW of electrical output to any utility power distribution system for sale. See, e.g., proposed 40 CFR 51.165(xx).

2. For the purposes of this notice, references to "new source review" (or "NSR") refer to the preconstruction review requirements of both Part C (PSD) and Part D (nonattainment) of the Clean Air Act, unless otherwise indicated.

3. The 1970 Clean Air Act also included a provision applicable to construction or modification of any stationary source. This provision is presently set forth in section 110(a)(2)(C). Today's notice does not propose to change the scope of the regulations implementing this provision. See 40 CFR 51.160-164.
4. This is further described in section III.H below.

5. An hourly emissions rate may be determined by a stack test or calculated from the product of the instantaneous emissions rate, i.e., the amount of pollution emitted by a source, after control, per unit of fuel combusted or material processed (such as pounds of sulfur dioxide emitted per ton of coal burned) times the production rate (such as tons of coal burned per hour). See 40 C.F.R. 60.14.

6. Annual emissions may be calculated as the product of the hourly emissions rate times the utilization rate, expressed as hours of operation per year, or as the product of an emissions factor (e.g., from Compilation of Air Pollutant Emission Factors, AP-42, 4th Ed. and subsequent supplements) in units of mass emitted per unit of process throughput times the annual throughput. See 40 CFR 52.21(b)(21).

7. The current PSD program is set forth in two sets of regulations. One of the regulations cited (40 CFR 52.21) is part of the federal PSD permit program which applies as part of a Federal implementation plan for States that have not submitted a PSD program meeting the regulatory requirements of 40 CFR 51.166 (standards for PSD provisions in State implementation plans). In most States where the federal requirements apply, EPA has delegated the authority to implement the PSD program back to the State. Roughly two-thirds of the States are implementing their own PSD program pursuant to an EPA-approved state implementation plan. Sections 52.21 and 51.166 have identical modification provisions.

The EPA's regulations for nonattainment areas are set forth at 40 CFR § 51.165, 52.24 and in Part 51, Appendix S. These sections contain applicability provisions regarding modification that are largely identical to those in the PSD provisions.

8. Roughly speaking, "contemporaneous" emissions increases or decreases are those which have occurred between the date five years preceding the proposed physical or operational change and the date that the increase from the change occurs. 40 CFR 52.21(b)(3)(ii). Once a modification is determined to be major, the PSD requirements apply only to those specific pollutants for which there would be a significant net emissions increase. E.g., 40 CFR 52.21(j)(3) (best available control technology); 40 CFR 52.21(m)(1)(b) (air quality analysis).

9. Puerto Rican Cement involved a cement plant, not an electric utility, but the court's legal analysis of the phrase "begun normal operations" in the current regulations is relevant to all facilities.

10. On remand, EPA employed an actual-to-future actual test, comparing WEPCo's representative actual emissions for the baseline period to estimated future actual emissions based on all the available facts in the record.

11. Section 415(b)(1) defines a CCT project as a 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."

12. For instance, EPA has specifically recognized that routine maintenance, repair and replacement, and changes in hours of operation or in the production rate are not considered a physical change or change in the method of operation. See 40 CFR 52.21(b)(2)(iii), 52.24(f)(5)(iii), 51.165(a)(1)(v)(C)(1), 51.166(b)(2)(iii), and 60.14(e)(1).

13. Memorandum from Edward Reich, Director, Stationary Source Compliance Division and William F. Pedersen, Acting Associate General Counsel, Air, Noise, and Radiation Division to Allyn M. Davis, Region IV (April 21, 1983).

14. See, Memorandum from Gerald A. Emison, Director, OAQPS, to

Regional Division Directors (July 7, 1986).

15. See, Letter, William G. Rosenberg Assistant Administrator, EPA, to Andrew Aitken, Vice President, New England Power Service Co., March 26, 1991; Letter, Rosenberg to Patrick M. McCarter, Senior Vice President, Public Service Co. of Colorado, July 23, 1990; Letters, David Kee, Director, Air and Radiation Division, EPA Region V, to Timothy J. Method, Assistant Commissioner, Indiana Dept. of Environmental Management, January 30, 1990 and March 8, 1990.

16. This presumption does not apply to past modifications at an emissions unit for the purpose of determining contemporaneous emission changes at a source and cannot be used to extend the five year period specified in that provision. See 40 CFR 52.21(b)(3)(1)(b).

17. The level of baseline emissions selected must be consistent with current assumptions regarding the source's emissions that are used under the state implementation plans (SIP) for planning or permitting purposes. Thus, the source may not select a level of baseline emissions higher than that used by the permitting authority in issuing a PSD or other construction permit to a source in the area, if such higher level would result in a NAAQS or increment violation, or violate a visibility limitation.

18. In projecting future utilization and emissions factors, the permitting authority 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.

19. This would be the case even if there were small differences in the post-demonstration physical and operational conditions due to a technical inability to restore the unit to its precise pre-demonstration condition, or due to normal variability in the coal used. Thus, EPA would not seek to apply NSPS or NSR because of a post-demonstration emissions increase attributable solely to an increase in the hours of operation or production rate of the unit (subject to the NSPS limitation that the production rate increase must be accomplished without a capital expenditure).

20. See 39 Fed. Reg. 36,948 col. 1 (proposed rule). In WEPCO, the utility contended that baseline capacity for the purpose of determining whether an increase in emission rate occurs for

purposes of an NSPS modification is the original design capacity of the facility. However, the court rejected WEPCO's argument that original design capacity or past "representative" capacity, no longer achievable at the plant, had to be used for the baseline emissions rate.

21. One technology -- low NOx/SOx Burner Retrofit -- is designed specifically for cyclone boilers which cannot be retrofit with low NOx burners while the other -- the Advanced Slagging Combustor -- is applicable to a number of boiler types.

22. See S. Rep. No. 95-217, 95th Cong., 1st. Sess. 31 (1977); Statement of Senator Muskie, 123 Cong. Rec. 59171 (June 8, 1977).

For the reasons set forth in the preamble, Part 51 of Chapter I of Title 40 of the code of Federal Regulations is proposed to be amended as follows:

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

1. The authority citation for Part 51 is amended 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 Clean Air Act Amendments of 1990, Pub L. No. 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 51.165 is proposed to be amended to read as follows:

51.165 Permit requirements.

(a) * * *

(1) * * *

(v) * * *

(C) A physical change or a change in the method of operation shall not include:

* * * * *

(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, and 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 ambient standard, 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 standards during the project and after it is terminated.

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

* * * * *

(xii) * * *

(D) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (E) of this subsection) that has not begun normal operations on a 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.

(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 two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-year period within 10 years after that change, where the permitting 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 permitting 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 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 clean coal technology demonstration project that is operated for a period of five 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.

(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 (1) 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 (2) 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) "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 two-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.

(xxvi)"Pollution control project" means any physical change or change in the method of operation, at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such changes 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) a physical change, or change in the method of operation, to accommodate switching to a fuel which is less polluting than the fuel in use prior to the change 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, section 101(d) of the Further Continuing Appropriations Act of 1985 (section 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.

3. Section 51.166 is proposed to be amended to read as follows:

51.166 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(2) * * *

(iii) A physical change or change in the method of operation shall not include:

* * * *

(h) 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 and except:

(a) when the reviewing authority has reason to believe 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

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

(i) any physical change or change in the method of operation at an existing electric utility generating unit (other than the addition of a new unit or the replacement of an existing unit) that would not result in a significant net increase in representative actual annual emissions of a regulated pollutant at the unit.

(j) 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 standards during the project and after it is terminated.

(k) 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 (v)

of this subsection) that has not begun normal operations on a 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.

(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 physical change or change in the method of operation at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such changes 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) a physical change, or change in the method of operation, to accommodate switching to a fuel which is less polluting than the fuel in use prior to the change, 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, section 101(d) of the Further Continuing Appropriations Act of 1985 (section 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 two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-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 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 (1) 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 (2) 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 five 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 nation 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 two-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 is proposed to be amended as follows:

Part 52-APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for Part 52 is amended 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 proposed to be amended to read as follows:

52.21 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(2) * * *

(iii) A physical change or a change in the method of operation shall not include:

* * * * *

(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, and except:

(a) 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

(b) the Administrator determines that the increase will cause or contribute to a violation of any ambient standard, 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:

(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 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 (v) of this subsection) that has not begun normal operations on a 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.

(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 physical change or change in the method of operation, at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such changes 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) a physical change, or change in the method of operation, to accommodate switching to a fuel which is less polluting than the fuel in use prior to the change 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, section 101(d) of the Further Continuing Appropriations Act of 1985 (section 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 two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-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 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 (1) 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 (2) 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 five 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 two-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 proposed to be amended to read as follows:

52.24 Statutory restriction on new sources.

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(f) * * *

(5) * * *

(iii) A physical change or change in the method of operation shall not include:

* * *

(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, and except:

(1) when the Administrator has reason to believe that the pollution control project would result in an 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 ambient standard, 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 reactivation of a very clean coal-fired electric utility steam generating unit.

* * * * *

(13) * * *

(iv) For any emissions unit (other than an electric utility steam generating unit specified in paragraph (v) of this subsection) that has not begun normal operations on a 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.

(18) "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.

(19) "Representative actual annual emissions" means the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change or change in the method of operation of a unit, (or a different consecutive two-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 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.

(20) "Temporary clean coal technology demonstration project" means a clean coal technology demonstration project that is operated for a period of five 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.

(21) "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.

(22) "Clean coal technology demonstration project" means a project using funds (1) 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 (2) 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.

(23) "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 two-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.

(24) "Pollution control project" means any physical change or change in the method of operation, at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such changes 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) a physical change, or change in the method of operation, to accommodate switching to a fuel which is less polluting than the fuel in use prior to the change 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, section 101(d) of the Further Continuing Appropriations Act of 1985 (section 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 proposed to be amended as follows:

PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for Part 60 is amended to read as follows:

Authority: 42 U.S.C. 7401, 7411, 7414, 7416, and 7601 as amended by the Clean Air Act Amendements 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 proposed to be amended by adding the following 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:

(i) has not been in operation for the two-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 60.14 is proposed to be amended 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 five 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 five 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 five years prior to the change.

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

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

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

(c) 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 five 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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