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Technical Support Document for the Equipment Replacement Provision of the Routine Maintenance, Repair and Replacement Exclusion: Reconsideration

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United States Environmental Protection Agency

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Acronym List

AAGR	Annual Asset Guideline Repair
AEP	American Electric Power
BACT	Best Available Control Technology
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CFR	Code of Federal Regulation
CHP	Controlled Heat and Power
DOE	Department of Energy
EAB	Environmental Appeals Board
EGUs	Electric Generating Units
EIA	Energy Information Administration
EIS	Economic Impact Statement
EPA	United States Environmental Protection Agency
ERP	Equipment Replacement Provision
ERV	Equipment Replacement Value
ESP	Electrostatic Precipitators
FCCU	Fluid Catalytic Cracking Unit
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FIP	Federal Implementation Plan
FR	Federal Register
GAO	General Accounting Office
HAP	Hazardous Air Pollutant
HUD	Housing and Urban Development
INGT	Interstate Natural Gas Association of America
IPM	Integrated Planning Model
MACT	Maximum Achievable Control Technology
NAAQS	National Ambient Air Quality Standards
NAIMA	North American Insulation Manufacturers Association
NEMS	National Energy Modeling System
NERC	Nuclear Energy Regulatory Commission
NESCAUM	Northeast States for Coordinated Air Use Management
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGT	Natural Gas Transmission
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OAQPS	Office of Air Quality Planning and Standards
PM	Particulate Matter

PM_{10}	Particulate Matter less than 10 microns in diameter
PSD	Prevention of Significant Deterioration
RIA	Regulatory Impact Analysis
RMRR	Routine Maintenance, Repair and Replacement
SCR	Selective Catalytic Reduction
SCAQMD	South Coast Air Quality Management District
SIGECO	Southern Indiana Gas and Electric Company
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
STAPPA/ALAPCO	State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials
TPY	tons per year
VOC	Volatile Organic Compound
WEPCO	Wisconsin Electric Power Company

Chapter 1 - Introduction

On October 27, 2003, EPA promulgated the Equipment Replacement Provision ("ERP"), a rule for the NSR permitting program that prospectively defined what types of equipment replacements are excluded from major NSR under the RMRR exclusion. The ERP rule would simplify the permitting process and help preserve the nation's productive capacity (see CAA, Section 101 (b)(1)) without compromising air quality.

On November 14, 2003 State and local governmental groups[1] challenging the final rule asked the U.S. Court of Appeals for the District of Columbia Circuit to stay the final ERP (i.e., prevent the rules from taking effect) until the challenges are resolved by the Court. Several environmental groups[2] filed a similar request on November 17, 2003. On December 24, 2003, the Court granted the requests and issued an order to stay the effective date of the ERP.

Also on December 24, 2003, EPA published a rule amending its PSD provisions for State programs that did not have approved State PSD rules. Prevention of Significant Deterioration is a permitting program designed to protect air quality in areas meeting national air quality standards. In each of these States, EPA previously had made the area subject to the PSD rules in the Federal Implementation Plan FIP. The rule simplified the procedure for incorporating changes.

On July 1, 2004, EPA granted reconsideration of certain aspects of the ERP. (See 69 FR 40278) In granting reconsideration, we requested public comment on three issues. The issues for reconsideration were: (1) the basis for determining that the ERP was allowable under the Clean Air Act; (2) the basis for selecting the cost threshold (20 percent of the replacement cost of the process unit) that was used in the final rule to determine if a replacement was routine; and (3) a simplified procedure for incorporating a FIP into State plans to accommodate changes to the NSR rules. We did not take action on the remaining issues for which petitioners requested reconsideration, but we indicated our intent to issue a final decision no later than 180 days after

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[1] State petitioners were New York, California, Connecticut, Illinois, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, Rhode Island, Vermont, Wisconsin, as well as the District of Columbia. Local government petitioners were City of New York; City of San Francisco; Connecticut Cities of Hartford, New Haven, New London, Groton, Middletown, and Stamford, and Towns of Waterbury, Westport, Cornwall, East Hartford, Easton, Greenwich, Hebron, Lebanon, Newtown, North Stonington, Pomfret, Putnam, Rocky Hill, Salisbury, Thompson, Wallingford, Washington, Westbrook, Weston, and Woodstock.

[2] Environmental group petitioners were Natural Resources Defense Council, Environmental Defense, Sierra Club, Communities for a Better Environment, American Lung Association, United States Public Interest Research Group, Clean Air Council, Michigan Environmental Council, Group Against Smog and Pollution, and Scenic Hudson.

publication of the July Federal Register notice. The public comment period ended on August 30, 2004. There were 367 comment letters received, not including attachments (see Appendix A) submitted to the EDOCKET (OAR-2002-0068) in response to the July 1, 2004 notice of reconsideration. The breakdown of commenters is: 307 citizen letters (some representing mass mailing campaigns), 44 industry comment letters, 9 State comment letters representing 16 entities, 1 Legislative comment letter, and 6 environmental group comment letters representing 14 entities. No comments from Tribal organizations were submitted.

For the reasons discussed in Chapter 4 of this document, EPA is taking final action on petitioners' request for reconsideration on these three issues. In addition, many commenters submitted comments on issues unrelated to the three reconsideration issues. We have not responded to comments on these issues because they were not open for reconsideration.

Chapter 2 - Standard for Reconsideration

Section 307(d)(7)(B) of the CAA strictly limits petitions for reconsideration both in time and in scope.[3] Specifically, it provides that EPA shall convene a proceeding to reconsider a rule if a person raising an objection can demonstrate that: (1) it was impracticable to raise the objection during the comment period, or that the grounds for such objection arose after the comment period but within the time specified for judicial review (i.e., within 60 days after publication of the final rulemaking notice in the Federal Register); and (2) the objection is of central relevance to the outcome of the rule.

On July 1, 2004 (69 FR 40278), EPA granted the petitions for reconsideration with respect to three issues. In Chapter 4 of this document we address those issues based on the record on reconsideration.

In the accompanying notice of final action, we deny reconsideration on the remaining two issues raised in the petitions for reconsideration. We denied two issues contained in petitioners' requests for reconsideration because they failed to meet the standard for reconsideration under section 307(d)(7)(B) of the CAA. Specifically, on these issues, the petitioners have failed to show: that it was impracticable to raise their objections during the comment period, or that the grounds for their objections arose after the close of the comment period; and/or that their concern is of central relevance to the outcome of the rule. An explanation of the denials is provided in Chapter 3.

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[3] Section 307(d)(7)(B) of the CAA, 42 U.S.C. 7607(d)(7)(B), provides:

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

Chapter 3 - Issues on Which We Denied Reconsideration

3.1 Retroactive Application

Comment:

One commenter (Environmental Groups, @2620) stated that the EPA has unlawfully and arbitrarily failed to grant reconsideration on an issue raised in their petitions for reconsideration of the ERP, namely, their objection to the EPA's retroactive application of the ERP. The commenter renewed their request that the EPA reconsider its decision to apply the ERP retroactively, and directed the agency's attention to the relevant portions of their reconsideration petitions and to the entirety of the letter that environmental organizations sent to Administrator Leavitt on February 5, 2004.

In its reconsideration petition, the commenter cited an EPA spokeswoman's remarks in a press report dated November 7, 2003, and a report dated November 13, 2003, regarding another EPA official's briefing to a legal group as the basis for the claim that the EPA intended to retroactively apply the ERP and no longer pursue past RMRR violations if the cases had not been filed and the activities in question would not violate the ERP. While acknowledging that the EPA had stated in the rule preamble that the ERP would not retroactively apply, the commenter claims the remarks attributed to the EPA officials constitute an illegal retroactive rulemaking, in contravention of the CAA, the APA, our own stated intent, and contemporaneous understanding of Supreme Court precedent. The commenter argues that these statements invite violations of the pre-ERP RMRR provisions that remain in effect in SIP-approved States, and thus violate State law as well.

Response:

The commenter has failed to establish that the issue of the potential retroactivity of the ERP was not one on which the commenter could have commented during the comment period. Some of the groups associated with the petition for reconsideration joined in comments that extensively discussed how certain percent thresholds would impact ongoing enforcement actions such as the one filed against the Tennessee Valley Authority. Thus, as a general matter, the issue of the impacts of the upcoming rule on fact scenarios that violated the pre-ERP RMRR rule was clearly before the public in the proposal. The mere fact the quotes on which the commenter relies were dated after promulgation but before the deadline for filing a petition for review does not mean that the issue of post-promulgation enforcement policy was impracticable to raise during the comment period.

By the terms of the petition, the commenter does not object to the outcome of the rule on the issue of retroactivity. The commenter presents more of a request for reaffirmation of statements in the rule preamble rather than a revision of the position taken in the rulemaking

before the Court. We acknowledge that we cannot claim that the ERP is the applicable "rule" for past conduct.

Substantively, the commenter's inferences about our abandonment of our position taken in the rulemaking are not borne out by the facts. Our conduct subsequent to the quoted statements has plainly established that we have not adopted a rule of retroactive application. We have not sought the dismissal of any enforcement action for violation of the RMRR provisions filed by the US, any State, or any private party in Federal or State court on the basis of the stayed ERP. Future conduct in SIP-approved States that retain the pre-ERP RMRR provision of course remains subject to State and citizen enforcement, regardless of the ERP.

We are, and have been, pursuing all filed cases and will continue to file new cases as appropriate. Our decisions on which cases to file are guided by a myriad of factors, including available resources and environmental protection. We acknowledge that the ERP is stayed and not currently effective in any jurisdiction. We continue to request information and put violators on notice when they violate our rules and policies. We note that none of the ERP rule revisions apply to any changes that are the subject of existing enforcement actions that the Agency has brought, and none constitute a defense thereto.

As discussed in the final ERP preamble (68 FR 61263), according to the U.S. Supreme Court, an agency may not promulgate retroactive rules absent express Congressional authority. See Bowen v. Georgetown Univ. Hosp., 488 U.S. 204, 208, 102 L. Ed. 2d 493, 109 S. Ct. 468 (1988). The CAA contains no such expressed grant of authority, and we do not intend by our actions today to create retroactive applicability to the ERP. The promulgated ERP will apply only to conduct that occurs after the rule is effective.

3.2 Opposes the Procedure For Incorporating a FIP into State Plans

Comment:

Two commenters (NYSDEC, @2521; New York et al., @2555) opposed EPA modifying a State's FIP without a finding of deficiency.

One commenter (NYSDEC, @2521) stated that EPA cannot modify a State's SIP without a finding of deficiency or notice of such deficiency as required under Section 110(k)(5), 42 USC §7410(k)(5). The commenter noted that, in order to require a State to revise its SIP, the EPA must find that a SIP is "inadequate to attain or maintain the relevant national ambient air quality standard, to mitigate adequately the interstate pollution described in Section 7506a of this Title or Section 7511c of this Title, or to otherwise comply with any requirement of this chapter." The commenter noted that the EPA can only require a SIP revision upon the finding that a particular SIP is deficient. The commenter added that if the EPA makes a deficiency finding, it must notify the State and the public of the inadequacies, and then the State has a reasonable period, not to exceed 18 months, to correct the inadequacy. The commenter cited several court cases. Second,

the commenter stated, the EPA must provide the State with the opportunity to submit comments on EPA's proposed findings to afford the State the chance to correct the purported deficiencies in its SIP. The EPA's indication in the preamble of the ERP rule that it was adding sections to the PSD regulations and thus would be "revising the references in subparts C through DDD to appropriately reflect the program that applies" is not sufficient notice of an allegedly deficient SIP in need of revision. The EPA cannot rely upon a prior, outdated finding of deficiency made in 1980. In addition to the fact that there have been substantive changes to the PSD program since 1980, the ERP rule is a relaxation of the prior rules. Under such circumstances, it is important that the EPA make a current finding of inadequacy and provide adequate notice of its theory of deficiency.

One commenter (New York et al., @2555) stated that the EPA's request for comment on the new format for incorporating FIPs into State SIPs ignored the primary issue for which the commenter requested reconsideration: the EPA's authority to issue a FIP without finding that the existing SIP is defective. On that point, the commenter reincorporated the arguments raised in their petition for reconsideration.

Response:

These commenters have failed to establish that it was impractical to raise during the comment period the issue of whether we need to make a new finding of deficiency before we amend a FIP. We note that many of the states who joined in filing the comment @2555 raised this issue with respect to the incorporation into FIPs of the 2002 NSR rule amendments in a petition for reconsideration filed on April 4, 2003. The comment period for the RMRR amendments proposed rule did not close until May 2, 2003. The issue of implementation in States subject to 40 C.F.R. 52.21 in general, and the issue of the need for a deficiency finding in particular, plainly could have been anticipated because these parties were raising the issue in the context of the 2002 amendments. The arguments in the 2002 rule litigation on this point are identical.

Because the FIP is a Federal program, it is inherent to its regulatory nature that we retain the authority to make appropriate changes to the Federal Program and that these changes will automatically apply in any jurisdiction in which the Federal FIP applies whether or not we delegate authority to a State to implement the PSD FIP. We believe that the ERP improves the ability of a State to "attain or maintain the relevant NAAQS, or to mitigate adequately the interstate pollution transport."

The EPA acknowledges that New York State is currently developing their own PSD program that they hope will obtain approval by the EPA and incorporated into their SIP in lieu of the Federal PSD. As noted in the preamble to the final ERP (68 FR 61255), nothing in the promulgated ERP would prevent a State or local program from imposing additional requirements necessary to meet Federal, State or local air quality goals.

Finally, the EPA incorporates pages 128 -138 of its brief in State of New York v. EPA, No. 02-1387 (D.C. Cir), as part of its response to this issue.

3.3 EPA not Receptive to Comments

Comment:

One commenter (New York et al., @2555) stated that rather than taking the opportunity to withdraw or amend the ERP, in response to the D.C. Circuit's stay of the ERP rule, the EPA indicated that it does not intend to change the final rule. The EPA's failure to be receptive to additional public comments has been held by the D.C. Circuit to violate the Administrative Procedure Act's notice and comment requirements. In Spirit of the Sage Council v. Norton, 294 F.Supp.2d 67, (D.C. Cir. 2003) [*sic*], the D.C. Circuit held that when an Agency promulgates a final rule that suffers from notice deficiencies, the Agency must "make a compelling showing" that it is "receptive" to comments solicited after a final rule. In the context of regulations implementing the CAA, a statute that requires the EPA to follow additional, stricter notice requirements, it is even more critical that the EPA keep an open mind and be receptive to public comments.

Response:

As the notice for this reconsideration makes clear, and as the commenter seems to agree, this proceeding for reconsideration is to remedy an alleged lack of an opportunity to comment on certain data and interpretations we adopted in the final ERP rule. Such alleged errors are in the nature of procedural deficiencies. The CAA has an unambiguous provision regarding invalidation of a Section 307(d) rule based on procedural errors. Section 307(d)(8) provides, "[i]n reviewing alleged procedural errors, the [reviewing] court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made." Therefore, as a legal matter, the commenter's assertion that the EPA has a heightened burden to show receptivity to changing its prior position is contrary to the CAA.

Moreover, in substance the language in the EPA's comments solicitation merely indicated that its preliminary position based on the record before it was that its original decisions on the issues under reconsideration were not inappropriate or erroneous. The Agency explicitly declared that it was not prejudging any information that would be provided in response to the comment solicitation. We were simply informing the public about our view of the state of the record so that the public comments would be focused on providing additional information and new arguments to support (or oppose) changing the ERP, rather than merely repeating matters already before us. This comment response document and the EPA's reconsideration of the ERP rule is the Agency's "showing" that it is "receptive" to public comments.

Chapter 4 - Reconsideration Issues

4.1 Basis for determining that the ERP was allowable under the Clean Air Act

4.1.1 General Agreement that EPA Has Demonstrated Adequate Legal Basis for the ERP

Comment:

Many commenters agreed with the EPA's discussion in the preamble to the final rule concerning the legal basis for the ERP. One commenter (Grocery Manufacturers of America, @2520) believed that EPA provided necessary and accurate justification for the final rule and hopes that the Agency will be permitted to go forward with the rule. Another commenter (Cinergy Corp., @2572) agreed that the EPA had adequate authority under the CAA, while a third commenter (CAA Services Steering Committee, @2522) supported the EPA's authority to conclude that routine equipment maintenance, repair, and replacement fall outside the scope of NSR. Another commenter (Interstate Natural Gas Association of America, @2656) also agreed that the legal basis articulated in the preamble to the final rule is sound and endorsed the legal basis comments prepared by the ERRC (see Docket No. OAR-202-0068). Another commenter (The Large Public Power Council, @2563) said that the EPA exercised its discretion in a manner that is consistent with the goals and objectives of the CAA by adopting several important environmental safeguards that must be satisfied to qualify for the ERP exclusion. One commenter (UARG, @2615) said that the ERP rule returns the NSR program from the uncertain and counterproductive interpretations that some have sought to apply in recent enforcement actions to a rational program that is faithful to its original intent and its historic application for two decades before 1999.

One commenter (Edison Electric Institute, @2567) agreed that the EPA possesses ample legal authority to promulgate and implement the final ERP rule. In fact, the EPA is known as a "regulatory" agency because it is empowered to create and enforce rules that carry the full force of law. Regulatory agencies create regulations according to rules and processes defined under the Administrative Procedure Act, which defines a "rule" or "regulation" as: "[T]he whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency." Given that the EPA possesses the authority to fine, sanction, shut down, and even jail individuals, businesses, and private and public organizations for violating NSR regulations, it is incumbent upon the agency to put forth lucid NSR regulations. According to the commenter, not only does the EPA possess the authority to implement the ERP rule, the EPA had been remiss in not doing so previously.

One commenter (Hawaiian Electric Company, Inc., @2586) reviewed and analyzed the legal basis for the ERP and concluded that the EPA has ample authority to promulgate the

provision. The commenter reviewed the legal analyses provided by other commenters and believed that the Utility Air Regulatory Group (UARG) (see @2615) submitted a detailed, cogent legal analysis of the NSR program, the RMRR exclusion, and the EPA's authority to develop and issue the ERP.

One commenter (TXU Power, @2571) supported the ERP rule and urged the EPA to reaffirm it as finalized in October 2003. The petitioners appear to believe that the only test for qualifying an equipment replacement project or projects as routine is the 20 percent of process unit replacement value test. The commenter pointed out that three other tests must also be met. The commenter believed that these hurdles are more than adequate to prevent abuse of the equipment replacement provision. Another commenter (Cinergy Corp., @2572) expressed a similar view concerning the effect of the additional tests that must be met in addition to the 20 percent threshold.

One commenter (NPCA, @2732) stated that though they would like to see further improvements made to NSR, they supported moving forward with the ERP rule and believed that it was both reasonable and supported by law.

Response:

We agree that we have the legal authority under the CAA to develop an equipment replacement exemption within the NSR program. For the reasons articulated in these responses to comments, we have decided to leave the ERP unchanged from the final rule promulgated on October 27, 2003 (68 FR 61248).

4.1.2 EPA Has Discretion to Interpret Ambiguous Terms

Comment:

Two commenters (S. C. Johnson & Son, Inc., @2368; ATOFINA, @2523) agreed with the EPA's contention that expert agencies have the discretion to interpret ambiguous statutory terms. For nearly three decades, the EPA's NSR rule "modification" provisions have specified that RMRR activities are excluded from NSR applicability. According to the commenter, the Agency has now merely sought to define these types of activities to clarify how this exclusion should be implemented. Agencies must be granted discretion to interpret statutory provisions when implementing regulations designed to carry out legislative intent and clearly communicate their interpretations to the regulated community. Clarification of the definition of RMRR is well within the EPA's authority and refining the definition is well justified within the CAA.

One commenter (NEDA/CAP, @2670) pointed out that the United States Attorney General's findings on NSR in 2000 [*sic*] underscores the EPA's rulemaking responsibility with respect to the NSR exclusion for RMRR. When the Attorney General of the United States was asked to comment on the legality of the EPA's NSR enforcement cases, he made clear that the

definition of RMRR could be construed in a number of ways and that the EPA could no longer legally flip around on the definition of RMRR without undertaking rulemaking on its meaning.

Response:

As discussed in detail in responses to other comments, we agree that we have discretion to interpret ambiguous terms in the statutory language we must implement. Additionally, we concur with the Attorney General's comments that, in this particular case, the regulated community and the public are best served if this interpretation is carried out through formal rulemaking procedures.

4.1.3 Interpretation of Ambiguous Terms - Chevron Comments

Comment:

Several commenters (American Gas Association, @2539; Dominion, @2523; Class of '85 Regulatory Response Group, @2568; American Public Power Association, @2630; Xcel Energy, @2551; Dairyland Power, @2553, Iron and Steel Industry Trade Groups, @2544; PacifCorp, @2546) believed that EPA's authority rests squarely on the Chevron authority to interpret the term "physical change or change in the method of operation." One commenter (American Gas Association, @2539) disputed petitioner's claim that the ERP rule departs from the clear meaning of that term. The commenter noted that even the petitioner did not claim that everything that could literally be a change at a facility (e.g., repairing a broken pipe) should trigger NSR. The commenter went on to note that the EPA regulations have always rejected such a literal reading. Another commenter (Dairyland Power, @2553) added that if the EPA did not have the discretion to interpret this term, then any activity, regardless of size, intent, or scope, would have to be evaluated for NSR applicability, and the EPA would have possessed no authority to promulgate the nine existing exclusions to the definition of physical change in the method of operation under the NSR program.

Other commenters disagreed that Chevron supported the EPA's position. Two commenters (SCAQMD, @2538; New York et al., @2555) stated that the EPA's definition of "modification" is improper even if the statute is ambiguous. An agency interpretation is improper if it is not "based on a permissible construction of the statute" or if "it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." Another commenter (NYSDEC, @2521) cited cases related to the definition of "modification" and believed the substantial body of judicial precedent clearly demonstrates wide acceptance of the notion that Congress intended the CAA term to have broad application to physical and operational changes. Moreover, according to the commenter, the EPA's public policy statements and litigation positions throughout the years confirm it understood the same.

Response:

The kind of replacements that automatically fall within the ERP are not expected to result in an overall emissions increase or result in a violation of the NAAQS. We believe that the activities that are included in the ERP are well within our discretion to exclude from the meaning of "change."

4.1.4 Relationship to NSPS

Comment:

Several commenters (Gas Turbine Association, @2519; American Gas Association, @2539; Southern Company, @2569; WEST Associates, @2573; NEDA/CAP, @2670; National Petrochemical & Refiners Association, @2545; Clean Air Implementation Project, @2581; Council of Industrial Boiler Owners, @2675) believed that the NSPS program provided support for the EPA's position on the legal basis of the ERP rule. Two commenters (Gas Turbine Association, @2519; Council of Industrial Boiler Owners, @2675) stated that the EIS for the stationary gas turbines NSPS says ongoing maintenance, repair and replacement activities are routine and thus excluded from the NSPS modification and reconstruction provisions. The NSPS document says major overhauls or major disassembly inspections on turbines occur routinely and are exempt from NSPS under the RMRR exclusion. The NSR term "modification" came from the NSPS definition. Since the NSR program, like the NSPS program, exempts RMRR activities from NSR, most agencies have appropriately considered major overhauls and other turbine maintenance to be RMRR for purposes of both NSPS and NSR. If these operations were not exempt from NSPS and NSR, many critical industrial operations would be severely impacted. If normal gas turbine overhauls were not exempt from these provisions, neither turbines nor valuable cogeneration installations would have been installed in the first place, since the economic recovery period for such an installation is usually longer than 2 to 3 years. One commenter (WEST Associates, @2573) added that they supported the comments on this topic submitted by UARG (see @2615).

One commenter (American Gas Association, @2539) stated that the ERP rule is simply a variation on the NSPS approach, which allowed a facility to make expenditures to increase production without triggering NSR The commenter pointed out that the ERP rule is tighter in significant respects than the Congressionally-endorsed NSPS regulation. According to the commenter, the ERP forbids any increase in emissions limits or fuel or raw material input specifications, while the NSPS regulation would allow each of these to increase as long as that could be accomplished without a "capital expenditure." Another commenter added that in light of the EPA's use of a 50 percent threshold in the NSPS permitting context, the 20 percent threshold is well within the bounds of the EPA's authority to define the cost threshold for presumed RMRR activities.

One commenter (National Petrochemical & Refiners Association, @2545) added that Congress intentionally linked NSR to the NSPS program which only applies to "new sources." Sections 111(b)(1)(B), 111(b)(4). This Congressional intent forms the basis for the meaning of

"modification." Therefore, the NSPS process of incorporating changes as exclusions to NSPS is directly transferred to NSR, specifically to ERP.

Response:

The purpose of the cost-based threshold is to serve as one of the four criteria that distinguish between those equipment replacement activities that should automatically qualify as RMRR without further consideration and those activities that should apply the multi-factor RMRR approach. This concept is akin to the long-established reconstruction provision under the NSPS program, however, it is not intended to mirror that provision. Under the NSPS program, when the cost of a project at an existing affected facility exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility (that is, the current capital replacement value of the existing affected facility), then the source must notify and provide information to the permitting authority. After considering a range of factors, including the cost of the activity, the estimated life of the facility after the replacements, the extent to which the replaced equipment causes or contributes to the emissions from the source, and any economic or technical limitations on compliance with the NSPS, the reviewing authority determines whether the proposed project is a reconstruction. We observed that, in some respects, an equipment replacement cost threshold set at the NSPS reconstruction test could be an appropriate approach for distinguishing between routine and nonroutine identical and functionally equivalent replacements under the major NSR program. As under the NSPS program, we do not believe it is reasonable to exclude from major NSR those activities that involve the total replacement of an existing entire process unit.

We also noted, however, that there are other considerations pointing in favor of a threshold lower than the 50-percent reconstruction threshold that might be appropriate to bound the ERP. Under NSPS, when a source undertakes a replacement activity at an existing affected facility that constitutes half or more of the facility's capital replacement value, our rules require a case-by-case determination as to whether such replacements constitute construction. We noted that a percentage threshold lower than 50 percent might be more appropriate for determining where we would require case-by-case consideration of the question whether equipment replacements constitute a modification of an existing process unit under major NSR. In the preamble to the proposed rule, we solicited comments on the appropriate level of any percentage. Many commenters supported the threshold of 50 percent of replacement value as the upper limit on equipment replacement. They believed a 50-percent cutoff to be consistent with reconstruction definitions used in many NSPS and NESHAP regulations. Some commenters stated that a 50 percent cutoff for the ERP would be valid for the same reason as for the NSPS reconstruction test; significant changes to a process unit are necessary before retrofit controls should be considered, provided there is no increase in emissions.

Many other commenters opposed the 50 percent replacement value threshold. They believed the capital replacement percentage should be much less than 50 percent. For example, one commenter believed the 50 percent number has no practical effect in protecting public health and the environment, and was not aware of any projects that have exceeded 50 percent in cost.

Another commenter said the 50 percent number from the NSPS is archaic and not environmentally protective.

We agree with those commenters who see a relationship between establishing a threshold for equipment replacements that we will treat as RMRR under the major NSR program and the threshold the NSPS program established for reconstruction. However, we disagree that these two thresholds should be the same. The NSPS threshold was intended to identify those activities that, even though they did not qualify as a modification under NSPS, nevertheless are of such magnitude that further consideration should be given as to whether they are projects tantamount to new construction. The 50 percent NSPS threshold is not a bright line in the sense that all projects that exceed 50 percent are automatically considered as reconstruction. Rather, it is a threshold intended to alert permitting authorities to significant projects and allow case-by-case decisions based on a series of regulatory factors.

The ERP replicates the NSPS concept in some ways. It identifies a cost-based threshold to serve as one of four criteria that distinguish between those activities that should automatically qualify as RMRR without further consideration and those activities that are subject the multi-factor RMRR approach. The major difference between the ERP and the NSPS reconstruction test is that the ERP deals with modifications, not reconstructions. This difference weighs in favor of establishing the equipment replacement threshold at something less than the reconstruction threshold. It is logical and practical to conclude, as some of the commenters do, that by using the word "modification" the CAA intended to capture activities on a smaller scale than reconstructions. Accordingly, we set the ERP cost threshold at 20 percent. We believe this value fits well within this conceptual framework.

4.1.5 NSR Not Intended to Prevent All Emissions Increases

Comment:

Several commenters (American Gas Association, @2539; Alliance of Automobile Manufacturers, @2574; Clean Air Implementation Project, @2581; National Petrochemical & Refiners Association, @2545) pointed out that the NSR program was not designed to prevent or reduce every emissions increase at existing sources. One commenter (American Gas Association, @2539) stated that they do not believe as a legal matter that the ERP rule must prevent all emissions increases or capture all emission reduction opportunities. The commenter noted that the ERP rule will not necessarily allow changes that increase emissions to escape NSR. The potential to emit for a compressor unit (either a gas turbine or an internal combustion engine) will not increase without an increase in fuel input capacity, and the ERP rule specifically denies relief to any changes that increase fuel input capacity. Emissions from a compressor can increase if the compressor's operating hours are increased. However, the commenter pointed out, the compressor's operating hours depend on the demand for gas, not on changes to the compressor station.

One commenter (Alliance of Automobile Manufacturers, @2574) pointed out that the petitioners argued that a broad definition of "any physical change" is required by the purposes of PSD/NSR, which was "to assure that any decision to permit increased air pollution" is reviewed. The commenter claims, however, that this argument shows a fundamental lack of understanding of the final rule. Under the rule, any replacement activity is disqualified from automatic exemption from NSR if it causes the process unit "to exceed any emission limitation, or operational limitation that has the effect of constraining emissions, that applies to the process unit and that is legally enforceable." The commenter notes that every industrial plant subject to PSD/NSR is also a major source required to obtain an operating permit under Title V. That operating permit must require compliance with "each applicable standard, regulation, or requirement under this Act," including "emission limitations and other requirements in an applicable implementation plan." Each source subject to NSR/PSD will be operating under legally enforceable limits that have already been reviewed by the permitting authority. Under the final ERP rule, no replacement activity is eligible for automatic exemption from NSR/PSD if it exceeds such operating limitations. The commenter also asserts that the petitioners' complaint that the automatic exemption will allow emissions increases to escape review is simply not true because any emissions increase will have to stay within emissions limits that have already been reviewed.

Two commenters (Clean Air Implementation Project, @2581; National Petrochemical & Refiners Association, @2545) added that Congress designed a number of regulatory programs to achieve emission reductions from every existing source. The commenters interpretation of the CAA shows that Congress gave State and local governments the primary authority for adopting measures to attain and maintain NAAQS. Also, according to the commenters, Congress designed a number of regulatory programs to achieve emission reductions such as SIPs, Acid Rain, and MACT.

Response:

The original 1978 NSR rules concerning modifications that we promulgated after enactment of the 1977 Amendments generally tracked the NSPS approach by specifying that RMRR was not a "change;" by specifying that changes in hours of operation and rates of production were not a "change;" and by using the same basic approach NSPS used to the question of what constitutes an "increase." 43 FR 26388 (June 19, 1978). Even after the D.C. Circuit struck down other portions of our 1978 NSR rules in its original per curiam decision in Alabama Power Co. v. Costle, 606 F.2d 1068 (D.C. Cir. 1979), we continued to propose to retain the RMRR provision and the "potential to emit" approach to emissions increases in our revised rules, although to drop the "hours of operation and rate of production" provisions because the "potential to emit" provision made them unnecessary. 44 FR 51924, 51937 (September 5, 1979). In our final 1980 NSR rules, however, issued after the D.C. Circuit's final Alabama Power decision, 635 F.2d 323 (1980), we changed our approach to the definition of "increase" in the NSR context to specify that a change would trigger NSR if it would result in an increase over "actual annual emissions." 45 FR 52676 (August 7, 1980). At the same time, and notably, we

restored the provisions stating that increases in hours of operation or production rate were not "changes." Id. at 52704.

It is important to understand what we did – and did not – decide in those final 1980 NSR rules. What we did decide was that as a general proposition, we would better serve the purposes of the NSR program if we used "actual" rather than "potential" emissions as the measure for determining whether an activity at an existing source results in an emissions increase. What we did not decide was that the purposes of the NSR program never allow us to exclude from the definition of "change." In particular, for example, we decided to retain the "hours of operation" and "rate of production" exclusions even though such changes might result in increases in "actual" emissions because not having the provisions "would severely and unduly hamper the ability of any company to take advantage of favorable market conditions." Id. Similarly, we retained the exclusion for "routine maintenance, repair and replacement" even though it too can result in emission increases. There is little doubt that increases in hours of operation and rates of production arguably could be understood to fall within the statutory definition of modification, since increases in hours of operation and rates of production certainly may be argued to be changes in the "method of operation" of a plant. On balance, however, we rejected that interpretation and determined that the definition of modification should not be read so broadly as to encompass hours of operation or production rate increases, at least so long as they are unrelated to a physical change.

In the revisions to the NSR program we announced on December 31, 2002 (67 FR 80186), we reiterated our adherence to the view that as a general matter we should continue to use "actual" rather than "potential" emissions in determining what activities constitute "modifications" under NSR. We continue to believe that is correct, but we also believe we should amplify our reasons for holding this view and why that view is entirely consistent with the final ERP rule. In determining the scope to give to "modification," we believe it is important to give weight to two aspects of what Congress decided in 1977. Congress decided that existing plants would not be immediately subject to NSR, but that they would become subject to NSR when they made "modifications." It is also important to understand why Congress chose this point at which to impose NSR on existing plants: to avoid the need to impose costly retrofits, but require placement of new control technology at a time when it makes the most sense for it to be installed. See H.R. Rep. No. 294, 95th Cong., 1st Sess. 185, reprinted in 1977 U.S. Code Cong. & Admin. News at 1254; 116 Cong. Rec. 32,918 (Sept. 21, 1970) (remarks of Sen. Cooper). See also WEPCO, 893 F.2d at 909–910; National-Southwire Aluminum Co. v. EPA, 838 F.2d 835, 843 (6th Cir., Boggs, J., dissenting), cert. denied, 488 U.S. 955 (1988). A wholesale exclusion of any activity that restores an existing plant to its potential to emit from the definition of modification is not consistent with this balance, since there are many activities that might have that effect but the occurrence of such activities would be an extremely effective time for the installation of new control technology on an affected source.

At the same time, we believe it is also important to give equal weight to the converse proposition that existing plants should not have to install new control technology in the ordinary course of their operations To require a source to do so would fail to give full effect to Congress'

decision that existing sources generally would not be required to obtain permits. It would also subject these plants and the consumers who rely on them to enormous dislocation and expense. That is why we excluded RMRR of existing plants from that definition.

4.1.6 Large-scale Equipment Replacement

Comment:

One commenter (American Gas Association, @2539) argued that the ERP rule will not allow piecemeal replacement of entire operating units in the natural gas distribution industry to defeat the application of NSR to new units. The commenter provided four reasons to support their argument: (1) the ERP will not allow changes that cause emissions increases; (2) the ERP rule will not result in a change in maintenance practices for this industry but instead confirms existing practices; (3) the cost to "uprate" a compressor station exceeds the ERP's 20-percent limit, and uprates are invariably accompanied by an increase in heat input capacity, which means the ERP rule would not apply; and (4) any suggestion that natural gas compressor stations will be unregulated if NSR does not apply is indefensible, as compressor stations are regulated under the NO_x SIP call and additional implementation plan provisions of many States.

Another commenter believed that the final rule would allow large-scale equipment replacements. The commenter (Environmental Groups, @2620) said that nothing in the final rule prevents a source from effectively undergoing a reconstruction by carrying out a series of sequential replacement projects that individually fall below the rule's 20 percent cost threshold. According to the commenter, the EPA expressly refused to set any temporal limit on how many projects at a process unit can qualify for the equipment replacement exemption within a given timeframe, thereby allowing a source to execute multiple replacement projects in the space of one year or some other short period. So long as the reconstruction is undertaken in a series of nominally independent projects, the ERP enables the complete reconstruction of a source to occur without triggering NSR. Thus, for example, the commenter claimed, a source owner, staffed with reasonably sentient accountants, could reconstruct an entire process unit through a series of five projects carried out sequentially over a relatively short period of time without triggering NSR. This aspect of the rule violates the language and the purpose of the CAA's NSR provisions, and threatens public health and the environment. Furthermore, the stark inconsistency between the words of the preamble and the regulatory text renders the rule unreasonable (if the issue is governed by Chevron Step Two) as well as arbitrary and capricious.

Response:

We agree with the commenter who believed that the ERP will not allow wholesale replacement of large portions of a facility (e.g., some commenters argued that a facility could reconstruct an entire facility through five sequential projects, each of which do not exceed the 20 percent threshold). Commenters who supported the opposite view failed to take into account the other criteria that must be met in order to qualify for the ERP: the new components must be identical or serve the same purpose as the replaced components, and the replacements do not

alter the basic design parameters of the process unit or cause the process unit to exceed any emission limitation or operational limitation (that has the effect of constraining emissions) that applies to any component of the process unit and that is legally enforceable.

Another important factor is that related activities must be aggregated under the ERP in the same way as they would have to be aggregated for other NSR applicability purposes. Under our current policy of aggregation, two or more replacement activities that occur at different times are not automatically considered a separate activities solely because they happen at different times. In the case of replacing an entire facility, it is not feasible that an owner or operator could successfully argue that multiple projects occurring one after the other within a relatively short time period are not related to one another and should not be aggregated for applicability purposes. Therefore, the situation envisioned by the opposing commenter would never happen.

4.1.7 Comments Related to State Programs

Comment:

One commenter (Electric Reliability Coordinating Council, @2531) offered observations regarding State program issues in connection with the ERP: (1) the CAA allows States to adopt more aggressive enforcement policies than the Federal government; (2) the only States that are potentially limited by the ERP rule are those that currently choose to conform their laws to the Federal approach; (3) states have participated in the NSR reform process, resulting in a final rule that supports and extends several innovations developed by the States themselves, and the commenter noted specific expressions of States' support of program reform; and (4) State rights are diminished by the reinterpretation of the NSR program in the 1999 enforcement initiative. This commenter further stated that the States of New Jersey, New York, and Pennsylvania allow, under their nonattainment NSR programs, projects that do not increase a facility's allowable emissions to proceed without NSR review, regardless of the project's size or whether the project involves "functionally equivalent" replacement components. In other words, these States allow a broader range of projects in their nonattainment areas than the ERP rule would allow in attainment areas.

Response:

We disagree with the assertion that we engaged in a reinterpretation of our rules when we brought the 1999 enforcement initiative. Furthermore, nothing in the 1999 enforcement initiative altered the relationship of EPA to State programs under the CAA.

We note that certain local programs in California exclude the replacement of equipment with identical equipment and allow the replacement of equipment with functionally equivalent equipment (subject to minimum pollution control requirements, if necessary) without considering such action to be a modification. Nothing in the final rule would prevent a State or local program from imposing additional requirements necessary to meet Federal, State, or local air quality goals.

4.1.8 Examples of RMRR Projects

Comment:

One commenter (National Petrochemical & Refiners Association, @2545) stated that in implementing NSR in the petroleum refining industry over the last 20 years, the EPA and the States have reviewed a wide variety of RMRR changes and appropriately excluded them from NSR. According to the commenter, these changes include those that need to be implemented during the normal day-to-day operation of the refinery and those that take place during a "turnaround." The commenter provided several examples of RMRR activities in this industry that have been excluded from NSR review. The commenter urged the EPA to continue to allow such exclusions and leave the final rule unchanged.

Response:

The RMRR activities cited by this commenter provide examples of projects that are environmentally beneficial and permitted under the ERP as RMRR if all conditions of the ERP are met. For example, replacing conventional burners with low NO_x and ultra-low NO_x burners, resulting in significantly lower NO_x emissions; replacing catalysts with ones that operate at lower temperatures, resulting in lower firing of process heaters, resulting in reduced combustion emissions; and replacement of FCCU regenerator cyclones with higher efficiency models, resulting in reduced catalyst PM emissions. These are the type of environmentally beneficial activities that the final rule will encourage.

4.1.9 Opportunity for Comment on the Legal Basis

Comment:

Three commenters (Southern Company, @2569; Equipment Replacement Rule Coalition, @2614; National Petrochemical & Refiners Association, @2545) believed that EPA provided adequate opportunity for comment on the legal basis of the ERP rule. One commenter (Southern Company, @2569) further explained that an agency's notice of proposed rulemaking is only required to fairly apprise interested persons of the subjects and issues involved in the rulemaking. The EPA was not obligated to solicit comments concerning the legal basis for its proposed rule. Another commenter (National Petrochemical & Refiners Association, @2545) stated that stakeholders have rarely found any difficulty identifying issues with which to challenge the EPA's rules, ranging from the most detailed technical issue to broad policies. Given this history, it is hard to believe that those arguing that they did not have the opportunity to comment on the legal basis of the rule overlooked in the preamble to the proposed rule in the section "How This Preamble Is Organized" a major heading titled "Legal Basis For Recommended Approaches." A number of commenters not only located this section but also provided comments to the EPA on the legal basis for the rulemaking.

Response:

We believe that the notice in the RMRR proposal was sufficient to allow for comment and that the comment period was adequate to allow interested parties to submit comments on all issues related to the ERP. We allowed a total of 120 days after publication of the proposed rule in the Federal Register for submittal of public comments.

4.1.10 Inadequate Enforcement Provisions

Comment:

One commenter (NYSDEC, @2521) stated that the rationality of the ERP rule is undermined by the lack of enforcement mechanisms or reporting procedures to ensure compliance. The commenter noted that a facility might opportunistically define a process unit in a way that ensures project costs would fall within the 20-percent cost threshold, yet there are no enforcement mechanisms in place to prevent this.

Response:

We believe that the records developed and maintained in the ordinary course of business will provide the primary means of assuring compliance with the final rule. We know that, as a general rule, companies necessarily generate and keep records related to the types of projects covered by the ERP. For example, companies generally have comprehensive procedures by which funds are allocated to both capital and maintenance expense projects. Many of the records generated by these procedures are needed for tax accounting purposes and, by law, must be maintained for at least 6 years. Moreover, additional records must be maintained in industries regulated for other purposes, such as the energy sector (over 90 percent of which, by capacity, is subject to FERC regulation). Public utilities, licensees and natural gas companies that are subject to FERC jurisdiction must, unless they receive a waiver from the Commission, comply with extensive accounting and record retention requirements. They must keep financial information according to uniform systems of accounts that are set out in 18 CFR part 101 for public utilities and licensees, and 18 CFR part 201 for natural gas companies. These uniform systems of accounts include hundreds of specific accounts, including individual accounts for boiler plant equipment, engines and engine-driven generators, turbogenerator units, and hundreds of other asset, liability, cost and property items.

These companies also must retain records according to the schedules set forth in 18 CFR part 125 (for public utilities and licensees) and 18 CFR part 225 (for natural gas companies). The types of records that companies must keep include, for public utilities and licensees, for example, generation and output logs (records must be kept for 3 years), load records (3 years), gauge-reading reports (2 years), maintenance work orders and job orders showing entries for labor, materials and other charges in connection with maintenance and other work pertaining to utility operations (5 years), work order sheets for construction work in progress (5 years), appraisals and valuations made of utility property or investments (3 years), engineering records, drawings, and other supporting data for proposed or as-constructed utility facilities, including detail drawings and records of engineering studies (must be kept until facilities are retired),

contracts or other agreements relating to services performed in connection with construction of utility plant (6 years after the plant is retired or sold), general and subsidiary ledgers (10 years), paid and canceled vouchers, and original bills and invoices for materials, services, etc. (5 years).

Altogether, these various sources of information provide more than reasonable assurance of compliance with today's rule. This is particularly true given the EPA's broad authority to inspect affected facilities and require submission of compliance related data. Accordingly, we did not impose any recordkeeping requirements in the final rule.

4.1.11 Inadequate Supporting Data

Comment:

One commenter (NYSDEC, @2521), referring to a GAO report, noted that the EPA has relied upon anecdotal evidence from industry to justify the ERP rule and also to determine emission impacts of the ERP rule. The commenter also pointed out the GAO finding that the EPA's conclusion drawn from these anecdotes is at odds with past pronouncements by the EPA that performing an energy project can provide an economic incentive to increase production levels, potentially resulting in increased emissions.

One commenter (NYSDEC, @2521) said the EPA provided no rational or legal basis from which one could conclude that the projects meeting the cost threshold will generally not impact air emissions. As an example, the commenter referred to modifications made at 14 coal-fired electric power generating units for Tennessee Valley Authority, which the EPA's EAB determined to constitute major modifications under the NSR provisions of the CAA. The commenter noted that, as shown in comments by the American Lung Association, et al. (OAR-2002-0068-1150), the ERP rule would exempt all of those projects without regard to whether they would cause in increase in emissions, assuming the modifications did not cause the facility to violate ambient air quality standards or other applicable emission limits unrelated to NSR.

Response:

At proposal, we presented a quantitative analysis of the possible emissions consequences of the range of different approaches to the RMRR exclusion to evaluate if our policy conclusions are correct. Our analysis was conducted using the IPM. This analysis was done for electric utilities because we have a powerful model to perform such an analysis that we do not have for other industries. We stated that the results for electric utilities accurately reflect the trends we would see in other industries.

The IPM analyses of different scenarios showed that the breadth of the RMRR exclusion would have no practical impact on, let alone be the controlling factor in determining, the emissions reductions that will be achieved in the future under the major NSR program. The analyses showed that emissions of SO_2 are essentially the same under all scenarios, but that under the final rule these emission levels will be met in a more economically efficient manner than the

base case. This stands to reason because nationwide emissions of SO_2 from the power sector are capped by the Title IV Acid Rain Program. For NO_x, these analyses showed modest relative decreases in some cases and modest relative increases in other cases. These predicted changes represent only a fraction of nationwide NO_x emissions from the power sector, which hover around 4.3 million tpy. (It should be noted that these analyses were performed prior to the EPA adopting the Clean Air Interstate Rule, which will provide additional reductions by capping SO2 and NOx emissions from electric utility plants in the Eastern U.S.) At this time, we do not have adequate information to predict with confidence which modeled scenario is most likely to occur. What these analyses indicate, however, is that regardless of which scenario is closest to what comes to pass, the final rule will not have a significant impact, up or down, on emissions from the power sector. However, we expect the rule to result in significant improvements in safety, reliability, and other relevant operational parameters.

The DOE also presented further analysis of the possible emissions consequences of the range of different approaches to the RMRR exclusion. Using the NEMS, a variety of changes in energy efficiency and availability were evaluated, as well as the effect on emissions resulting from these regulatory revisions. This analysis concluded that efficiency improvements resulting from increased maintenance, repair and replacement are expected to decrease emissions, whereas availability improvements are expected to increase emissions. In the cases represented in this analysis, the emissions reductions from assumed reductions in heat rates tended to dominate the corresponding effects of the assumed availability increases.

Regarding the applicability of our analysis to non-utility sectors, we continue to believe that our conclusions are valid for all sectors, and further, that the effects from the electric utility industry dominate those from other sectors. We acknowledge that the results for the SO_2 cap for utilities cannot be extended to non-utilities that are not similarly capped. However, our model runs for NO_x reflected the absence of a cap, and are therefore valid for other uncapped sectors. Thus in the case of industrial boilers, which behave similarly to utilities, we would expect to see similar efficiency improvements and availability improvements occurring in tandem, resulting in either modest increases or decreases. Because the overall emissions from this sector are significantly smaller than for utilities, the modeled effects for utilities are expected to dominate the analysis.

For other industrial sectors, we do not anticipate that emissions increases will result from equipment replacement activities that qualify as RMRR under the final rule. While some efficiency improvements may result, the overall effect of these improvements will not be to induce greater demand and greater emissions, in contrast to the effect shown by the modeling for utilities (i.e., demand for other industrial sectors depends on independent factors). Indeed, without increased demand, efficiency improvements that lower emissions per unit of output would result in a decrease in emissions.

Concerning the GAO report, energy efficiency is only one of the considerations on which we based the ERP rule. Moreover, in our reconsideration of the environmental effects of the proposed rule, we specifically considered that report and determined that it provided no basis for

the Agency to revise the rule. The GAO report asserts that there are uncertainties concerning the potential impacts of the proposed rule, a fact that we have acknowledged. We have pointed out, however, that the GAO report did not find that the environmental analysis was incorrect or that the final rule was unjustified. After considering the extensive comments received on the proposals and during reconsideration and the numerous meetings that the EPA held with interested parties, we determined that the final rule will be economically beneficial and have minimal environmental impact. That conclusion is supported by the record.

4.1.12 Assertions that the ERP Rule Will Lead to Emissions Increases

Comment:

Several commenters (NYSDEC, @2521; Jeffords, et al., @2376; STAPPA/ALAPCO, @2576) disagreed with EPA's assertion that the ERP rule would not lead to emissions increases. One commenter (NYSDEC, @2521), citing a NESCAUM report, noted that maintenance and repair activities could lead to increases in utilization and capacity, thereby increasing facility emissions, and even small increases in emissions could significantly impact air quality. Another commenter (Jeffords, et al., @2376) (Peg Lautenschlager, Attorney General for the State of Wisconsin) estimated that the effects of the ERP rule in Wisconsin will be an increase in air pollution of almost 3,000 tons. One commenter (STAPPA/ALAPCO, @2576) stated that the final rule eliminates permitting and control technology requirements in many cases by exempting from NSR those sources replacing equipment that is valued at 20 percent or less than the value of the total process unit even if the actual emissions would increase. The commenter believed that this exemption virtually eliminates the NSR program for modifications at existing sources and will result in increased emissions and poorer area quality in many areas.

Response:

In our response to the previous comment, we discussed the analyses we performed to estimate the impact of the ERP. We continue to believe that the results of these analyses are correct and that the concerns voiced by these commenters are misplaced.

The showing we made in these analyses is credible for a number of reasons. First, the substitution effect of replacing deteriorating emission sources with well-maintained emission sources will generally reduce emissions per unit of output. The ERP itself should not materially affect demand in markets served by ERP-affected sources. To the extent individual sources will increase output (and emissions) following maintenance allowed by the ERP, output (and emissions) at other plants will decrease. Second, when placed in the context of the overall implementation of the CAA, EPA's emission cap programs and NAAQS will actually force emission reductions through attainment planning. Therefore, large increases in emissions are not expected, contrary to the suggestions of experts relied on by the commenters. Finally, an exclusion from NSR applicability under the ERP will not affect other applicable requirements of the CAA, including RACT, MACT, and emission tonnage limits in title V permits. In light of

these considerations, EPA can reasonably conclude that the ERP will not lead to an overall emission increase as suggested by the commenter.

In appropriate circumstances, a State may seek to use CAA Section 126 to petition for additional controls on out-of-state sources.

4.1.13 Whether the Final Rule Contravenes Clean Air Act or Congressional Intent

4.1.13.1 Final Rule is in Accord with the CAA and Congressional Intent

Comment:

Based on the CAA definition of "modification," two commenters (Virginia Independent Power Producers, Inc., @2560; El Paso Corp., @2561) believed that the EPA not only has the authority, but also an obligation, to exclude RMRR activities from NSR if they do not (1) make "any physical change in, or change in the method of operation of, a stationary source" or (2) the change does not increase "the amount of any air pollutant emitted from such source or which results in the emission of any pollutant not previously emitted." According to the commenter, the revised ERP is more restrictive than required by the CAA because it requires that both (1) no changes are made and (2) no emissions are increased, instead of requiring that either one of the two requirements be met as the CAA definition of modification does. Also, the final rule requires that the cost of the RMRR activity remain below the capital cost threshold, which is not required by the CAA definition of modification. One of the commenters (El Paso Corp., @2561) added that the EPA has the authority to adopt an exclusion for any projects that would not increase a source's potential to emit.

Two commenters (Duke Energy, @2564; Southern Company, @2569) stated that the RMRR provision is not a new addition to the NSR program, and Congress understood that certain activities should not be considered physical or operational changes. An exclusion from NSR requirements for RMRR activities has been a part of the new source programs since their inception. Congressional actions in both the 1977 and 1990 CAA Amendments, the EPA rulemakings to codify Congressional action, and the implementation history of the new source programs all confirm that RMRR activities that ensure safe and reliable operation of sources as originally designed and constructed are not the types of activities that constitute "modifications" under the new source programs.

Three commenters (Edison Electric Institute, @2567; Southern Company, @2569; National Refiners & Petrochemical Association, @2545) stated their opinion that the petitioners' argument that the modifier "any" in the CAA definition of modification compels the agency to adopt the broadest possible interpretation of physical change is not only legally flawed, for the reasons explained in the rule preamble, but also would result in a regulation that is too broad and burdensome to be enforced by federal and state agencies. Starting in 1999, the Agency's

enforcement office sought to impose, by litigation rather than rulemaking, a new interpretation of RMRR. The commenters claim that the petitioners want to apply this interpretation so broadly that it would completely obliterate the CAA's distinction between "new" and "existing" facilities, subjecting all facilities (new and existing) to repeated and frequent NSR evaluation and permitting. By attempting to include every replacement activity within the meaning of "physical change," the petitioners' construction of the term "any physical change" conflicts with Congress's clear intent that RMRR activities not be considered physical changes. The commenters stress that failure to implement a clear and consistent RMRR exclusion results in arbitrary enforcement across all industrial sectors, subject to the whims and prejudices of those managing enforcement activities.

Two commenters (Pinnacle West Capital Corporation, @2584; NEDA/CAP, @2670) stated that the fundamental purpose of the NSR program is to require pre-construction permits, and state-of-the-art pollution controls, for new sources. Congress expressly determined that existing sources did not require such permits, except in very narrow circumstances. Instead, Congress affirmatively charged the states with determining the extent to and means by which existing sources are required to comply with the NAAQS. Another commenter (UARG, @2615) supported this view and provided an extensive review of the statutory and regulatory background of the NSR program as it pertains to modifications and RMRR. Based on this review, the commenter concluded that the ERP rule is completely consistent with the CAA, and the EPA acted well within its discretion under the CAA in promulgating it.

One commenter (NEDA/CAP, @2670) stated that petitioners asserted that the final rule is illegal because it is not consistent with the either the CAA or with prior EPA regulations or court decisions regarding those regulations. The commenter believed that both of petitioners' legal grounds for challenging the ERP rule are wrong. First, according to the commenter, the EPA provided a thorough and legally defensible analysis of how the ERP rule is entirely consistent with the CAA's NSR program. Second, while the ERP rule is consistent with prior NSR regulations, if not recent Office of Enforcement interpretations of those regulations [so characterized by the commenter], the EPA has ample authority to change its regulations consistent with the statute so long as it conducts rulemaking to accomplish such changes.

One commenter (Iron and Steel Industry Trade Groups, @2544) believed that the extensive legal authority provided in five pages of the EPA's preamble clearly demonstrated that the final rule does not contravene Congressional intent and that the ERP rule is lawful under the CAA. The commenter notes that the EPA recognized that it must interpret physical or operational change in a flexible way that furthers the purpose of the CAA. In addition, the commenter claims that the EPA accurately states that Congress intended that the NSR program should be administered in a manner that protects the environment and promotes the productive captivity of the nation. According to the commenter, the EPA stated that these goals can be achieved by providing the State and local governments with the discretion to make decisions as to what emissions reductions are needed in their jurisdictions to satisfy and maintain the NAAQS.

Response:

We agree with these commenters that we had an adequate legal basis for the ERP. We also believe that we followed the directives of the CAA and that the final rule is consistent with Congressional intent. Our reasoning that formed the basis of these conclusions is set forth in more detail in response to the following set of comments.

We disagree with assertions by the commenter that we adopted a new interpretation of RMRR starting in 1999. The positions we have taken in those cases are consistent with the meaning of the rules as they stood at the time of the activities at issue in these cases.

4.1.13.2 Final Rule is not in Accord with the CAA and Congressional Intent

Comment:

One commenter (NYSDEC, @2521) views the ERP rule to be inconsistent with the plain language of the CAA and one not based on a permissible construction of the statute. For more than 15 years, the commenter noted, the EPA and the courts have determined on a case-by-case basis whether an activity was routine maintenance, giving broad effect to statutory terms and focusing on practical and common sense factors. The EPA's departure from longstanding practice cannot be justified on the scant rulemaking record assembled.

One commenter (Calpine Corporation, @2588) stated that nothing in the CAA or the relevant interpretations of NSR provide the EPA with the authority to establish a financial allowance or cost-based exemption, while ignoring the important singular focus on emissions increases that the CAA requires, regardless of plant vintage. Under the PSD program adopted in 1977, all new major sources must install BACT. Existing sources are required to install state-of-the-art pollution controls when they are refurbished.

One commenter (Delaware, @2554) stated that since the EPA's authority under the CAA is to provide for improvements in the quality of air, there is uncertainty with the EPA's legal authority to proceed in a manner that may allow polluters to avoid the requirements of the NSR program to substantially decrease emissions as facility improvements are completed. Consequently, the commenter urged the EPA to carefully scrutinize the factual basis underpinning its argument that this rule will improve air quality as the EPA's authority extends to clarify this provision in a manner that furthers the goal of increasingly improving air emissions.

One commenter (Environmental Groups, @2620) pointed out that in the Legal Basis section of the preamble, the EPA argued that because Congress incorporated Section 111(a)(4)'s definition of "modification" into the PSD provisions in 1977, the EPA's then prevailing construction of the "any physical change" language "delineates a zone of discretion within which the EPA may operate" in its PSD/NSR regulations. The commenter claimed to have demonstrated that the EPA's rule exempts physical changes that increase emissions significantly,

and that there is no evidence that Congress intended to ratify such a divergence from the plain language of the CAA. Congress did not, in 1977, express any approval with the RMRR exclusion then in existence.

One commenter (NYSDEC, @2521) said the problem with the ERP rule is that it can affect emissions by allowing old sources to undertake modifications that increase generation and production capacity and enable old sources to extend their useful lives without having to install appropriate pollution control equipment. For this important reason, the ERP rule cannot be reconciled with the plain terms of the CAA or its underlying policy objectives.

One commenter (Delaware, @2575) specifically asserted that the ERP rule would allow emissions increases and that such a rule violates the language of the CAA and Congressional intent. The commenter (Delaware, @2575) pointed out a study conducted by NESCAUM of the impact of the ERP rule that compared actual and Title V permitted emissions of sources in states upwind of the New England states. The NESCAUM study, published in June 2004, indicates that the ERP rule has the potential to allow VOC emission increases in New Jersey of 967 percent and NO_x increases of 1,820 percent. Other pollutants (CO, PM_{10}, and SO_2) showed similar potential increases. The ERP rule, in the opinion of the commenter, contravenes the intent of Congress by allowing large emissions increases without triggering NSR and without requiring the addition of modern pollution control measures or equipment. Congress, in creating the CAA, intended that major NSR be applicable "for any physical change," not just some of them.

Several commenters (Delaware, @2575; Calpine Corp., @2588; Environmental Groups, @2620; New York et al., @2555; Adirondack Mountain Club, @2542) believed that the CAA clearly states that modifications should trigger NSR, and that equipment replacement should be considered a modification. The views of many of these commenters were reflected by one commenter (Delaware, @2575) who stated that Congress did not intend that sources in existence when the CAA was written to immediately add controls. Instead, the commenter believed the expressed intent of Congress was to rely on the need for future modifications to trigger the requirement that emission controls be added. The commenter also believed Congress did not intend regulatory actions, such as the ERP rule, to allow a source to completely replace all equipment in a process unit without NSR permitting and without adding controls. The commenter also believed that Congress did not intend these grandfathered sources to continue to pollute at their current levels indefinitely. Therefore, the commenter believed the CAA provided no legal basis for the rule as written. One commenter (Environmental Groups, @2620) added that an amendment to the 1990 CAA, which was defeated, took an approach similar to that in the ERP rule for equipment replacement. This defeat preserved the then existing definition of modification, and any emissions increasing physical change, including replacement projects involving identical of functionally equivalent parts, is a modification.

Two commenters (National Petrochemical & Refiners Association, @2545; National Forest & Paper Association, @2547) disputed this view. According to one of the commenters (National Petrochemical & Refiners Association, @2545), the petitioners believed that Congress

intended all grandfathered sources to go through NSR at some unspecified point in the future. According to the commenter, the EPA corrected this misunderstanding in the preamble to the final rule. The commenter stated that the EPA correctly explains, any existing source can make as many physical or operational-method changes as it wishes without going through NSR, if the changes do not result in a significant net emissions increase. The other commenter (National Forest & Paper Association, @2547) stated that petitioners argued that the ERP exclusion conflicts with the purpose of NSR to subject all emissions increases to review. However, this point is wrong for three reasons according to the commenter. First, Congress intended NSR, like NSPS before it, to require controls when it made technical sense to install them. That is shown most clearly by the adoption of the NSPS "modification" test for use in NSR. Moreover, Congress in 1977 expressly reaffirmed its intent to focus NSR technology control requirements on the opportunities that made technical sense. Second, NSR was never intended to cover all emissions increases. The NSR program does not apply to sources below the "major source" emissions threshold, or to variations in emissions at existing major sources that are not caused by a physical change or change in the method of operation. According to the commenter, the CAA contains many other programs to reduce emissions to attain the NAAQS and protect visibility, and to limit emissions to preserve the PSD increments. The commenter charges that the petitioners simply assumed the conclusion they prefer when it contends that the EPA's definition of physical change or change in the method of operation must be rejected because it could lead to emissions increases. Third and finally, the commenter claims that changes at the commenter's member facilities under the ERP exclusion will virtually never cause increases above enforceable limits that constrain emissions. Instead, the ERP exclusion, without allowing emissions increases, will greatly streamline the process of making changes to improve safety, efficiency, reliability, and environmental performance and will therefore encourage those changes.

Response:

The commenters' claim that the EPA's interpretation is inconsistent with statutory intent is based on a misreading of the CAA and its legislative history. Contrary to the claims of commenters, the purpose of the NSR modification provisions is not to compel emissions reductions from existing sources, but to limit emissions increases resulting from physical or operational changes. This is evident from the statutory requirements. The NSR provisions are triggered only where a new source or a modification to an existing source results in a significant increase in projected emissions. If Congress had intended NSR to compel decreases in emissions, it would be irrational for the requirement to be triggered only when a facility, in fact, increases its emissions. Rather, NSR requires that facilities making changes that increase their emissions meet emission limits that reflect state-of-the-art control technology, analyze the increased emissions from their facilities to ensure that they will not adversely affect air quality, and, in nonattainment areas, offset their emissions increases with emission reduction credits.

Because the commenters misstated Congress' intent, there is no basis for their claim that we are substituting our preferred policies for Congressional intent. Congress did not intend the NSR provisions to be used to compel emission reductions from existing sources, but plainly did

intend that the EPA balance economic and environmental considerations in implementing NSR. That is exactly what the EPA has done.

Rather than NSR, the CAA's primary mechanisms for achieving the emissions reductions needed to attain or maintain NAAQS are SIPs. In their SIPs, States are required to provide measures necessary to achieve or maintain the NAAQS. In nonattainment areas, SIPs must contain measures to achieve specified annual percentage reductions in emissions to ensure progress towards attainment. These SIP requirements work in concert with federal programs such as the NO_x SIP Call, Clean Air Interstate Rule, and Title IV Acid Rain program. Because of this complex array of programs designed to achieve air quality standards, we have reasonably determined that the appropriate role for the NSR program is to ensure that emissions increases from new or modified sources are subject to control and air quality analysis, which is entirely consistent with the statutory language.

Concerning the incorporation of CAA Section 111(a)(4)'s definition of "modification" into the 1977 PSD provisions, we disagree with the commenter's characterization of our argument in the preamble to the final ERP rule. Nowhere in that notice did we argue that Congress mandated adoption of the 1977 NSPS regulatory interpretation of what is a "modification" when it cross-referenced CAA Section 111(a)(4) into the NSR program. We do not believe Congress intended to ratify the then-existing interpretation or "congeal" our NSR regulations as they stood under NSPS program in 1977 (see our Brief for Respondent in State of New York v. EPA, D.C. Cir. Case No. 02-1387 (Aug. 9, 2004) at 38-40). Our discussion of the history of our interpretation of Section 111(a)(4) simply points out the obvious: that words of Section 111(a)(4) historically have been taken to have quite different meanings in the NSR and NSPS programs. From this, we argue that any words that can be given such divergent meanings for decades cannot have but one clear meaning on their face. To argue that the definition of "modification" in Section 111(a)(4) is unambiguous, as the commenters have, one must advance an unusual position that does not make sense: that the same words, with no further definitions or legislative history, facially and unambiguously mean different things.

4.1.14 Interpretation of the Definition of "Modification"

Comment:

Two commenters (S. C. Johnson & Son, Inc., @2368; American Forest & Paper Association, @2547) believed that an expansive interpretation of the definition of "modification" would produce absurd results. According to one commenter (S. C. Johnson & Son, Inc., @2368), under such a strained interpretation, even a maintenance activity undertaken to replace worn nuts or bolts in a piece of equipment could be construed as a modification subject to NSR applicability. Another commenter (American Forest & Paper Association, @2547) believed that the ERP rule rests ultimately on the EPA's power to define the term "physical change or change in the method of operation." The ERP's interpretation of that phrase falls well within the ordinary meaning of that term, and it falls well within the limits that Congress expressly approved when it made this term applicable to NSR regulation in 1977. Indeed, according to the

commenter, given the EPA's interpretation of its existing rules, the addition of the ERP exclusion moves the EPA's rules closer to that original intent than they were before.

Other commenters (Environmental Groups, @2620; New York et al., @2555; Adirondack Mountain Club, @2542) thought that the definition should be interpreted in the broadest terms. One commenter (Environmental Groups, @2620) stated that, as the EPA recognized in the final rule's preamble, the ordinary meaning of the term "change" denotes a variety of activities, including those that replace components with identical or functionally equivalent ones. The commenter notes that Congress's use of "any" expresses Congress's understanding that the various types of physical changes, including identical or functionally equivalent replacements, are all within NSR's reach, if they increase emissions. The commenter points out while Congress may not have defined the phrase "any physical change" or the words therein, Congress also expressed no intent to limit Section 111(a)(4) to particular kinds of emissions-increasing physical changes. If it had intended such a result, it easily could have said so. In short, "the replacement of any component of a process unit with an identical or functionally equivalent component(s)" falls within the plain meaning of Section 111(a)(4)'s reference to "any physical change," and such a replacement must undergo NSR if it "increases the amount of any air pollutant emitted by such source" or "results in the emission of any air pollutant not previously emitted." The commenter claims that the EPA's attempt to exempt such activities violates the plain meaning of the CAA and must be rejected under Chevron Step One, or in the alternative is an unreasonable interpretation that must be rejected under Chevron Step Two.

The commenter further stated that the evidence the EPA cites for broad interpretive discretion has no bearing on the exclusion that is at issue here. Moreover, the very regulatory language that the EPA cites reveals that the "routine replacement" exclusion lacks the premise that the agency ascribes to it. In particular, the pre-1977 regulations did not, as the EPA suggests, exclude a list of activities from the collective phrase, "physical change . . . or change in the method of operation." Rather, the pre-1977 regulations excluded one list of activities from the term, "physical change," and a second, non-overlapping list from the term, "change in the method of operation."

Thus, the two distinct statutory terms led the EPA, in its pre-1977 regulations, to develop two distinct lists of exclusions. The commenter claims that this is not surprising, for whereas physical changes always carry certain easily recognizable hallmarks, such as the use of tools and replacement parts, the same cannot be said of operational changes. The only regulatory exclusion from "physical change" in 1977 was for "routine maintenance, repair, and replacement." The commenter stated that the EPA in 1977 did not define "routine replacement" with anything approaching the breadth necessary to accommodate the ERP. To the contrary, the commenter asserted that the EPA acknowledged that the exclusion's coverage extended only to the bounds of the agency's authority to exempt *de minimis* emissions increases. The commenter argued that the EPA cannot credibly argue, then, that Congress, assuming that it even took notice of the "routine replacement" exclusion in 1977, meant to ratify an interpretation broad enough to accommodate this rule.

This commenter also pointed out that the EPA argued because the CAA does not separately define the terms in the phrase "any physical change," there is a gap or ambiguity that the EPA has discretion to fill as it wishes. To the contrary, the commenter argued that, in the absence of a separate statutory definition, the statutory terms are presumed to have their ordinary meaning. Indeed, cases under the CAA have repeatedly emphasized the importance of applying the ordinary meaning of statutory terms.

Another commenter (Adirondack Mountain Club, @2542) stated that the final ERP rule significantly broadens the definition of "routine maintenance" to allow existing stationary sources to be reconstructed and indefinitely escape the cost of installing pollution control devices. Such a broad application of the routine maintenance exemption has repeatedly been struck down by the courts. Numerous court decisions have concluded that Congress did not intend a permanent exemption from the requirements of the CAA. In doing so, the courts have ruled that the routine maintenance exemption must be construed very narrowly. The commenter provided citations from Alabama Power, WEPCO, Southern Indiana Gas and Electric, and Ohio Edison to support these claims. The commenter also pointed out that according to various EPA enforcement documents, the EPA has conceded that since the routine maintenance exclusion was not explicitly created by statute, the exclusion must be narrowly construed.

Response:

The core of the NSR program is to require preconstruction permits for all new major sources. Congress specifically decided that existing sources generally would not be required to obtain permits. These considerations are the starting point for understanding its application to "modifications" and the meaning we should give that term.

The NSR's applicability to existing sources to which a "modification" is made is an exception to this basic concept. This exception finds its roots in the NSPS program's applicability to "modifications" of existing sources. The 1970 CAA made the NSPS program applicable to modifications through its definition of a "new source," which it defined as "any stationary source, the construction or modification of which is commenced after the publication of regulations . . . prescribing a[n applicable] standard of performance . . . ." Section 111(a)(2). Section 111(a)(4), in turn, defined a "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 from such source or which results in the emission of any air pollutant not previously emitted."

Congress did not further define the terms "physical change" or "change in the method of operation" in the NSPS program. Therefore we issued regulations to clarify their meaning. As early as our 1971 NSPS regulations, we have made clear that many activities that do not affect the contemplated operation of a unit in a manner consistent with its original design are not physical or operational changes. Specifically, in our 1971 NSPS regulations, we determined that physical or operational changes do not include: (1) routine maintenance, repair and replacement of equipment; (2) an increase in the production rate, if such increase does not exceed the

operating design capacity of the affected facility; (3) an increase in the hours of operation; and (4) use of an alternative fuel or raw material if the affected facility is designed to accommodate such alternative use. 36 FR at 24877 (Dec. 23, 1971). In reflecting on these provisions, we believe the premise behind characterizing these activities as not being "changes" is that they all contemplate that the plant will continue to be operated in a manner consistent with its original design.

The 1977 Amendments to the CAA likewise made the NSR program applicable to "modifications." The original 1977 Amendments did so explicitly only in their provisions dealing with the non-attainment portion of the NSR program. See CAA Section 171(4). But in "technical and conforming" amendments to the 1977 Amendments, Congress clarified that it intended the same result with respect to the PSD provisions. See CAA Section 169(2)(c).

Notably, Congress did not enact a new definition of "modification" in either the original 1977 Amendments or the "technical and conforming amendments." Rather, it incorporated the NSPS definition of "modification" by cross-reference. See CAA Section 169(2)(c), 171(4). In moving the adoption of those amendments, the sponsor (who was also the sponsor of the original 1977 CAA Amendments and who indicated that the technical amendments had been approved by all members of the original 1977 Amendments conference committee) stated in a summary and statement of intent that he placed in the Congressional Record that this was a deliberate choice. As that summary explained, Congress intended the amendment "implement[ed] the [1977 CAA Amendments] conference agreement to cover "modification" as well as "construction" by defining "construction" in part C to conform to usage in other parts of the Act." 123 Cong. Rec. 36331 (Nov. 1, 1977). We have understood this to be a reference to our preexisting rules interpreting the term "modification" in the NSPS context. 49 Fed. Reg. 43211, 43213 (1984); see also 43 Fed. Reg. 26388, 26394, 26397 (June 19, 1978).

The original 1978 NSR rules concerning modifications that we promulgated after enactment of the 1977 Amendments generally tracked the NSPS approach by specifying that"routine maintenance, repair and replacement" was not a change; by specifying that changes in hours of operation and rates of production were not a "change;" and by using the same basic approach NSPS used to the question of what constitutes an "increase" (increase to a source's potential to emit, except that the NSR rule used annual potential to emit while the NSPS program used short-term potential to emit). 43 FR 26388 (June 19, 1978). Even after the D.C. Circuit struck down other portions of our 1978 NSR rules in its original per curiam decision in Alabama Power Co. v. Costle, 606 F.2d 1068 (D.C. Cir. 1979), we continued to propose to retain the RMRR provision and the "potential to emit" approach to emissions increases in our revised rules, although to drop the "hours of operation and rate of production" provisions because the "potential to emit" provision made them unnecessary. 44 FR 51924, 51937 (September 5, 1979). In our final 1980 NSR rules, however, issued after the D.C. Circuit's final Alabama Power decision, 635 F.2d 323 (1980), we changed our approach to the definition of "increase" in the NSR context to specify that a change would trigger NSR if it would result in an increase over "actual annual emissions." 45 FR 52676 (August 7, 1980). At the same time, and notably, we

restored the provisions stating that increases in hours of operation or production rate were not "changes." Id. at 52704.

The commenters argue that Congress provided the only acceptable limitation on what physical changes are not subject to NSR as a modification, which is the requirement that the physical changes result in an increase in emissions of any pollutant or the emission of any pollutant not previously emitted. They also argued that an agency cannot imply an exemption to, or otherwise insert limiting language into, a categorical statutory provision, especially where Congress was specific in how it would allow the language to be limited.

We disagree with the commenters on three grounds. First, the commenters seem to assume the answer to the threshold question - that equipment replacements that meet the ERP criteria are "physical changes." - in order to say that we are creating an exemption for activity that is presumptively subject to NSR. We believe that there is no such presumption prior to the agency defining the ambiguous term. Second, we believe that the implication of the commenter's argument would mean that several long-accepted exemptions from NSR would no longer be valid were their position adopted. These exemptions from "any...change in the method of operation" were discussed in our final rule legal basis. Finally, we believe that the commenter's argument would not give meaning to all the words of the definition of modification. The commenter's position reads that "any physical change or change in the method operation" to be so inclusive that essentially the test for a modification becomes whether emissions increase at a source because there always will be some "change" to which the increase can be linked. In contrast, the ERP, as part of our overall approach to the definition of modification, gives meaning to both the "change" portion as well as the "emissions increase" portion of the definition.

To summarize: with respect to existing sources, the purpose of the NSR provisions is simply to require the installation of controls at the appropriate and opportune time. The kind of replacements that automatically fall within the equipment replacement provision established today do not represent such an appropriate and opportune time. Accordingly, and given that it is consistent with the meaning of "change" to treat this kind of replacement as not being a "change," we believe excluding them on that basis from the definition of "modification" as used in the NSR program is well calculated to serve all of the policies of the NSR provisions of the CAA, and is therefore a legitimate exercise of our discretion under Chevron, U.S.A. Inc. v. NRDC, 467 U.S. 837 (1984), to construe an ambiguous term. Likewise, we believe this approach is consistent with the holding in the WEPCO case, and with some though not all of that case's reasoning.

The commenter mischaracterizes what we say about the effect Congressional action in 1977 after the EPA had promulgated the pre-1977 exclusions. As we have stated in our briefs, we do not claim Congress specifically meant to "congeal" the exclusions as they existed in 1977. One of our points in comparing the history of the NSPS exclusions with those from NSR is to show that historically we have not treated the definition of modification to compel us to deem every activity at source that could, under some interpretation, be deemed a change to be a change

for our regulatory purposes. Our past exercise of discretion in interpreting "any . . . change," as amply documented by the commenter, confirms the correctness of our understanding of the statute.

4.1.15 Purpose of NSR

Comment:

One commenter (Environmental Groups, @2620) believed that the EPA's argument that the purpose behind NSR is to schedule pollution control upgrades for "appropriate and opportune" moments conflicts with positions that the agency took prior to its promulgation of the ERP, as well as with positions it has taken since. In its August 2004 response to the legal challenges to the 2002 NSR rule revisions, for instance, the EPA conceded that "the purpose of the NSR provisions is . . . to limit emissions increases resulting from physical or operational changes." The agency adds that

> the purpose of New Source Review is to require that facilities making changes that increase their emissions meet emission limits that reflect state-of-the-art control technology, analyze the increased emissions from their facilities to ensure that they will not adversely affect air quality, and, in nonattainment areas, offset their emissions increases with emission reduction credits.

According to the commenter, the EPA's acknowledgment in its response brief that Congress intended NSR to "limit emissions increases" and "require that facilities . . . meet emission limits" directly belies the assertion that the agency makes in the ERP preamble that "the purpose of the NSR provisions is simply to require the installation of controls at the appropriate and opportune time." The discrepancy between these two interpretations of Congressional intent undermines the agency's claim that it has reasonably interpreted the CAA pursuant to its discretion under Chevron. Furthermore, the interpretation presented in the EPA's response brief, that NSR was designed to limit emissions increases, reveals the unlawfulness of the EPA's decision to exempt equipment replacement projects from NSR, even if those projects result in emissions increases well above the agency's significance levels.

One commenter (American Forest & Paper Association, @2547) did not agree that Congress thought that all emissions units had some predetermined "useful life" at the end of which NSR would be required. However, even if that were true, the final ERP rule would not allow any new and non-traditional types of equipment "life extension."

Response:

We disagree with the commenter who stated that we have been inconsistent with our interpretation of the purpose of the NSR program. We have always consistently stated that the purpose of the NSR program follows that of the CAA in general, which is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare

and the productive capacity of its population.'' CAA Section 101. The commenter is confusing the purpose of the CAA with defining the terms used in the CAA, most notably the definition of "any physical change," "increase," and "modification." We have clearly stated our definition of these terms and the reasoning we used to arrive at these definitions. We continue to believe that our definitions of these terms are the correct ones, and that these definitions consistently echo the purpose of the NSR program.

4.1.16 Economic Considerations

Comment:

One commenter (American Forest & Paper Association, @2547) stated that the regulatory history and Congressional intent show that EPA could and should have issued regulations that allowed facilities to expand production free from NSR by investing a certain percentage of their capital value, without regard to any resulting emissions increase. The EPA's ERP rule falls far inside that legal boundary. Most notably, ERP forbids any increase in fuel or raw material input specifications. Without such an increase, a facility's "potential to emit" cannot become greater. However, the NSPS test would allow both input specifications and potential to emit to increase as long as that could be accomplished without a "capital expenditure."

One commenter (New York et al., @2555) pointed out that the EPA attempted to justify its reinterpretation of the modification provision based on its identification of Congressional intent to promote the nation's "productive capacity." However, Congress chose to balance economic and environmental interests in the NSR program in a different manner. Congress intended that compliance with NSR emission control requirements by modified sources would facilitate economic growth by allowing room for new sources without harming air quality, thereby furthering Congressional intent "to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources."

Response:

As the Supreme Court explained in Chevron, where it upheld a considerably more significant shift in the Agency's understanding of Title I of the CAA, to wit, the scope of the term "stationary source," there is nothing inherently suspect about a change of approach of this type by an expert Agency seeking to interpret a technical statutory term so as best to accommodate competing interests that Congress has charged the Agency with reconciling.

In Section 101 of the CAA, Congress stated that Title I of the CAA has a dual purpose: "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." This duality is reiterated in the statement of purpose of the PSD provisions and in the House Report accompanying the 1977 Amendments in connection with the non-attainment provisions. See Section 160(1) (purposes of the PSD program are, inter alia, "to protect public health and welfare from any actual or potential

adverse effect" of air pollution and "to insure that economic growth will continue to occur consistent with the preservation of existing clean air resources"); H.R. Rep. No. 95–294, p. 211 (The "two main purposes" of the non-attainment permitting program are "(1) to allow reasonable economic growth to continue in an area while making reasonable further progress to assure attainment of the standards by a fixed date; and (2) to allow States greater flexibility for the former purpose than EPA's present interpretative regulations afford").

More specifically, with regard to the question at issue here, Congress directed the EPA not to apply NSR preconstruction permitting requirements to existing plants as a general matter, but to apply them to "modifications." Both directives are entitled to receive appropriate weight.

In these circumstances, changes in an Agency's understanding informed by greater experience are not only not surprising, they are to be expected. Effectuating these underlying Congressional commands requires a careful weighing and accommodation of the competing considerations underlying them. Sensitivity to unintended consequences, and a willingness to adjust policies in a manner informed by a better understanding of those consequences, are a central element of the responsibilities of an Agency given such a charge. As the Chevron Court explained:

> Our review of the EPA's varying interpretations of the word "source" – both before and after the 1977 Amendments – convinces us that the agency primarily responsible for administering this important legislation has consistently interpreted it flexibly – not in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena. The fact that the agency has from time to time changed its interpretation of the term "source" does not, as respondents argue, lead us to conclude that no deference should be accorded the agency's interpretation of the statute. An initial agency interpretation is not instantly carved in stone. On the contrary, the agency, to engage in informed rulemaking, must consider varying interpretations and the wisdom of its policy on a continuing basis. Moreover, the fact that the agency has adopted different definitions in different contexts adds force to the argument that the definition itself is flexible, particularly since Congress has never indicated any disapproval of a flexible reading of the statute. 467 U.S. at 863–64.

The Court went on to point out:

> In these cases the Administrator's interpretation represents a reasonable accommodation of manifestly competing interests and is entitled to deference: the regulatory scheme is technical and complex, the agency considered the matter in a detailed and reasoned fashion, and the decision involves reconciling conflicting policies. Congress intended to accommodate both interests, but did not do so itself on the level of specificity presented by these cases.
>
> [A]n agency to which Congress has delegated policymaking responsibilities may, within the limits of that delegation, properly rely upon the incumbent administration's views of

> wise policy to inform its judgments. While agencies are not directly accountable to the people, the Chief Executive is, and it is entirely appropriate for this political branch of the Government to make such policy choices – resolving the competing interests which Congress itself either inadvertently did not resolve, or intentionally left to be resolved by the agency charged with the administration of the statute in light of everyday realities.
>
> We hold that the EPA's definition of the term "source" is a permissible construction of the statute which seeks to accommodate progress in reducing air pollution with economic growth. 'The Regulations which the Administrator has adopted provide what the agency could allowably view as . . . [an] effective reconciliation of these twofold ends.' Id. at 865–66.

We agree that we strike the balance between productive capacity of the nation and the protection of the environment differently than these commenters would. We disagree with the assertion that the balance we struck inappropriately weights either consideration. To the extent that Congress left discretion to anyone in striking such a balance, it is afforded to the Administrator and not to litigants. The record demonstrates that our approach, in concert with other CAA programs, is consistent with preserving clean air resources and improving air quality in areas that are not attaining the NAAQS as well as Congress's intentions written explicitly in Sec. 101(b)(1) to preserve the productive capacity of the nation's population and in Sec. 160(3) to balance economic and environmental concerns.

When balancing the economic and environmental interests of the nation, we have also considered that there are many other systematic air programs that will not merely prevent emission increases from existing sources but even reduce emissions at sources we expect to use the ERP. In fact, the entire state implementation plan (SIP) program under Sec. 110(a) establishes a framework for systematic reduction of emissions from existing sources when such reductions are deemed necessary to meet or maintain the NAAQS. The CAA places primary responsibility on the States to achieve the emissions reductions needed to attain and maintain the NAAQS. Over the years, States have in fact achieved significant emissions reductions in furtherance of this obligation.

To assist States, we have developed model market-based programs patterned after the successful Acid Rain provision in Title IV of the CAA. For example, EPA's recently issued "Clean Air Interstate Rule (CAIR)," will ensure, through States adopting a "cap and trade" or other program approach, that overall emissions from electric utilities throughout much of the Eastern part of the country will meet overall emission limits that are sharply below that which they emit today. CAIR ensures that, by 2015, SO2 and NOx emissions will be permanently reduced by 5.4 million tons and 2.0 million tons, respectively, over 2003 levels. Additional emission reductions will occur after 2015 when CAIR is fully implemented.

There are other CAA programs, as well, that are specifically tailored to require emission reductions from existing utility and nonutility sources. These programs include the Maximum Achievable Control Technology (MACT) standards that apply to new and existing sources of air

toxics and Control Technique Guidelines that provide guidance to states in determining Reasonably Available Control Technology (RACT) for sources in ozone nonattainment areas. All of these CAA measures will apply systematically to existing sources, and are unaffected by the applicability or non-applicability of any NSR exclusion, such as the RMRR exclusion and its further definition as set forth in the ERP. And, in appropriate circumstances, a State may seek to use CAA Section 126 to petition for additional controls on out-of-state sources.

Even in the absence of these other CAA programs, we note that the substitution effect of replacing deteriorating emission sources with well-maintained emission sources will generally reduce emissions per unit of output. The ERP itself should not materially affect demand in markets. Thus, to the extent individual sources will increase output (and emissions) following maintenance allowed by the ERP, output (and emissions) at other plants will decrease. Thus, we conclude that the ERP will not lead to an overall emission increase. In light of this important factor, as well as the economic and safety benefits of the ERP, we believe we should use the flexibility that exists under the statute to appropriately define RMRR without compromising air quality.

In contrast to the CAA programs discussed above that systematically and efficiently obtain emission reductions, the NSR program for existing sources, as that program existed before the ERP, was applied in a scattershot manner, only triggered by "modifications" however defined on a case-by-case manner. Under NSR, emissions reductions can only be obtained in a "catch-as-catch-can" manner, and there never has been and never can be a date certain by which all existing sources in an area of the country must comply with an emission cap or a NAAQS. Moreover, as fully explained in our recent brief filed in defense of the NSR Improvements Rule of December 31, 2002, the NSR program is not an emission reduction program. It is a program to limit emission increases resulting from physical and operational changes. Brief for Respondent at 73 - 75, *State of New York v. US EPA*, No. 02-1387 & consolidated cases (D.C. Cir.) ("If Congress had intended to compel decreases in emissions, it would be irrational for the requirement to be triggered only when a facility, in fact, increases its emissions"). In light of the programs under the Act that systematically and efficiently allow for both reductions in emissions and firm caps on emissions, and the scattershot applicability and limited goals of NSR program with respect to existing sources, it was appropriate for us to strike the balance of economic and environmental interests in accordance with the CAA, as we did when we changed our method for implementing the modification definition in the NSR program.

Commenters suggested that the EPA's decision in promulgating the ERP is not entitled to deference because, in their view, it appears that Congress would not have sanctioned an interpretation that allows sources to conduct a multi-million dollar refurbishment activities that increase emissions without triggering NSR. The record establishes that overall emissions will not increase while safety, efficiency, and reliability of plants will improve. Furthermore, improvements in safety, efficiency, and reliability improve environmental performance by minimizing the frequency of startup, shutdowns, and malfunctions. While the record contains some conflicting data and studies, Congress left the weighing of this information and the forming of policies based on this information to the EPA as an expert agency. The EPA's decisions in

this matter are entitled to deference under Chevron. We considered the quality and validity of the submitted data and studies in developing our conclusions.

4.1.17 Comments Specific to Court Cases

4.1.17.1 Nixon v. Missouri Municipal League

Comment:

One commenter (Alliance of Automobile Manufacturers, @2574) agreed with EPA's conclusion that the ERP as established in the final rule has a solid legal foundation. The Supreme Court's recent decision in Nixon v. Missouri Municipal League, 541 U.S.125, 124 S.Ct. 1555 (2004), confirms EPA's analysis. The EPA's preamble to the final rule pointed out that the CAA's definition of "modification" as "any physical change" does not have to be interpreted in a broader sense than it would otherwise be read merely because it is preceded by the word "any."

Similar to the Court's analysis in Nixon, the EPA has correctly concluded that "a broader frame of reference" is required to interpret "any physical change." Included in the "broader frame of reference" was the fact that the 1977 CAA Amendments, which made NSR applicable to "modifications," incorporated the NSPS definition, and the EPA had previously interpreted the NSPS definition not to apply to several activities that may have been "changes" in some sense but did not alter the operation of the plant in a manner consistent with its original design.

Nixon is particularly significant because it undermines the WEPCO decision, the authority on which petitioners principally rely. In WEPCO, the Court repeatedly stressed the term "any" as supporting its broad interpretation of "any physical change." That is precisely the reasoning that the Supreme Court rejected in Nixon.

One commenter (Southern Company, @2569) pointed out that the Supreme Court's recent decision in Nixon supports the traditional understanding of the phrase "any physical change." 124 S. Ct. 1555, 1561 (2004). In Nixon, the Supreme Court explained that Congress's understanding of the term "any" can differ depending upon the statutory setting. An overly expansive reading of the term "any physical change" that would include RMRR would lead to absurd results.

One commenter (Electric Reliability Coordinating Council, @2531) commented on the petitioner's argument that the CAA prohibits "any" modification without triggering NSR. This interpretation struck the commenter as simplistic, ignoring decades of practical clarifications to NSR applicability that populate federal clean air regulations. The commenter went on to note that the Supreme Court recently wrote in Nixon that "'any' can and does mean different things depending upon the setting." The Court further observed that, "to get at Congress's understanding, what is needed is a broader frame of reference." In order to achieve this broader frame of reference, the Court cited with favor New Jersey Realty Title Ins. Co. v. Division of Tax

Appeals of N. J., U.S. 665, 673 (1950), which instructs that one must enquire into "the practical operation and effect" of the statutory construction.

Three commenters (NYSDEC, @2521; Environmental Groups, @2620; New York et al., @2555) said that although the Court in Nixon looked beyond the express provisions of the Telecommunications Act to the Constitution, Nixon does not provide a green light for a Federal agency to do the same absent a compelling legal basis. In sharp contrast to Nixon, there were no overriding constitutional considerations in connection with the interpretation of the CAA term "modification" that are implicated by the ERP rule. There are also no other statutory considerations that provide adequate justification for the EPA's casting aside more than two decades of judicial precedent and legislative history in adopting a new interpretation of the term "modification."

One commenter (Environmental Groups, @2620) believed that the Nixon case does not support narrowing the meaning of the phrase "any physical change" in Section 111(a)(4) of the CAA. Nixon noted that reading "any entity" to encompass states' political subdivisions would lead to a host of incongruities, and accordingly invoked the doctrine against construing a statute in a manner that leads to absurd results. Here, by contrast, the EPA has previously espoused an interpretation of "any physical change" that includes items exempted by the ERP, and the ERP preamble announced that the agency will continue to seek deference for that previous interpretation in ongoing enforcement litigation. For that reason and others, the agency cannot credibly claim that such an interpretation is absurd.

This commenter also provided an extensive review of caselaw before and after Nixon related to broad interpretation of the meaning of "any" as used in a regulatory context. The commenter concluded that pre-Nixon cases remain fully viable and applicable here. Moreover, in the short time since Nixon, the Supreme Court has handed down at least two decisions emphasizing the breadth of statutory phrases containing "any." In Engine Mfrs. Assn. v. South Coast Air Quality Management District, 124 S.Ct. 1756 (2004), the Supreme Court construed CAA Section 209(a)'s provision that "[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part." The Court found that this language "is categorical," and that it is "impossible to find in it an exception for standards imposed through purchase restrictions."

Likewise, Intel Corp. v. Advanced Micro Devices,124 S.Ct. 2466 (2004), construed a statute providing "that a federal district court 'may order' a person 'resid[ing]' or 'found' in the district to give testimony or produce documents 'for use in a proceeding in a foreign or international tribunal . . . upon the application of any interested person." In short, the caselaw both before and after Nixon confirms that, absent special circumstances that are not present here, the use of "any" to modify language indicates comprehensive coverage, and indeed requires broad reading of the modified terms.

Response:

In our July 1, 2004 Federal Register notice, we invited comment on a recent Supreme Court case (Nixon) that construed a prohibition on States and localities enacting legislation to bar "any entity" from offering interstate telecommunications services to not apply to legislation that restrained political subdivisions of states from entering the field. The Nixon Court observed that Congress's understanding of "any" can differ depending upon the statutory setting. This opinion reversed a case petitioners had relied upon in seeking a stay of the ERP on the proposition for which it was cited.[4]

In discussing the significance of the modifier "any" in the statute and in discussing the Nixon case, commenters opposed to the ERP argued that numerous cases besides Nixon have held that terms modified by the word "any" must be given the most inclusive meaning possible, that such terms must be interpreted expansively, and that "any" has a broad meaning.[5] These commenters distinguished Nixon on the grounds that this case raised particular federalism concerns (i.e., the ability of a state to regulate its own political subdivisions) not present in Section 111(a)(4) of the CAA or the ERP.

Several other precedents establish that the principle on which Nixon relies, that the understanding of "any" can depend on the statutory context, is not limited to situations with federalism implications. E.g., O'Connor v. U.S., 479 U.S. 27, 31 (1986) (statutory context shows "any taxes" limited to taxes of the Republic of Panama); Mastro Plastics Corp. v. NLRB, 350 U.S. 270 - 85 (1956) ("any strike" does not include strike in response to unfair labor practices); Bell Atlantic Tel. Cos. v. FCC, 131 F.3d 1044, 1047 (D.C. Cir. 1997) (FCC regulation narrowing "any . . . facilities or services" that a Bell operating company could offer affirmed when Court notes "textual analysis is a language game played on a field known as 'context'"). As recently as April 26, 2005, the Supreme Court relied on Nixon in determining that a conviction in "any court" does not include a conviction in a foreign court. Small v. United States, No. 03-750, 2005 U.S. LEXIS 3700. Therefore, we believe the "broader frame of reference" adopted by the Nixon Court is not an isolated and unsupported view of the law limited to cases raising federalism concerns.

None of the cases cited by the commenters stands for the proposition that a term modified by the word "any" invariably must be given its broadest meaning. In Harrison and in other cases,

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[4]State and Municipal Petitioners' Emergency Motion for a Stay, State of New York v. EPA, D.C. Cir. No. 03-1380 and consolidated cases, at 8 fn.14 (citing Missouri Mun. League v. FCC, 299 F.3d 949, 954 (8th Cir. 2002), rev'd sub nom. Nixon v. Missouri Mun. League, 541 U.S. 125, 124 S. Ct. 1555 (2004)). A copy of this motion was submitted to the record as a comment on the reconsideration notice.

[5]E.g., Harrison v. PPG Industries, 446 U.S. 578 (1980); United States v. Gonzales, 520 U.S. 1 (1997); Department of HUD v. Rucker, 535 U.S. 125 (2002). A post-Nixon addition to this line of cases is Norfolk Southern Railway Co. V. James N. Kirby, Pty Ltd., 125 S. Ct. 385 (2004).

the Court found "no indication whatever" that Congress intended a narrower or limited construction of statutory terms. These cases discuss a different statutory context than the adoption of the definition of "modification" in the NSR provisions of the CAA. These cases do not involve a situation in which Congress incorporated into a section of a statute a term that had been used in another section of the statute and which had been given a different meaning under that prior section. While there is no evidence that Congress compelled the EPA to replicate its NSPS interpretation of "any physical change" in the NSR program, the fact that the words at issue were given a different construction in the NSPS is an indication that words do not have a unique and, therefore, unambiguous meaning.

The cases cited by the petitioners and the Nixon line of cases are not, in fact, opposing and contradictory. Both support looking for indications in the statute that suggest a more limited meaning of the modified term is possible or intended. We believe such indications exist in the NSR context because the modification definition inserted into the NSR provisions by a 1977 technical amendment to the 1977 CAA Amendments cross-referenced the pre-existing term under Section 111(a)(4).

Implicitly, at least one of the commenters critical of the ERP recognizes that a broader frame of reference can apply by arguing that while in Nixon, a broad construction of "any" would have led to absurd, futile, and farfetched results, the same would not be true for the NSR modification definition. For NSR, according to the commenters, Congress placed a clear limit on what changes must be considered modifications - those that increase emissions.

In the definition of "modification," we believe a view that "any" compels a broad construction of the modified terms also has farfetched implications. The same word "any" that modifies "physical change in" also modifies "change in the method of operation of." The commenters' argument proves too much. The argument would say that exemptions from the definition of modification on any basis other than *de minimis* increases would not be necessary or appropriate, even long accepted ones that limit the scope of "change in the method of operation." As the preamble to the final rule notes, many of these exemptions can result in non-*de minimis* increases in emissions. To accept the commenter's argument would mean that one word ("change") that modifies two clauses in a definition compels a broad construction of one modified clause while allowing discretion when it modifies the other clause.

Another commenter picks up on Nixon's reliance on the doctrine of avoiding absurd or futile results and echoes the view that this doctrine would not apply in the context of the modification definition. In this commenter's view, the EPA cannot claim that a broad construction of "any physical change" would lead to absurd or futile results when we adopted such a broad construction of "any physical change" in the past and continue to seek deference for such an interpretation in ongoing enforcement litigation.

We do not claim our prior interpretation is absurd or futile. The Agency claims that the use of the word "any" in the statute does not compel only our prior interpretation.

Adoption of the commenters' position that Section 111(a)(4) only allows for one interpretation of "any physical change" would lead to an incongruity at least as great as that which was at issue in Nixon: that the identical statutory text incorporated into both the NSPS and the NSR provisions "clearly" could support only one meaning in the NSR context while it supports a different meaning in the NSPS context. Rather than saying Section 111(a)(4) is clear but has two distinct meanings, common sense suggests the wording is ambiguous and allows for an expert agency to adopt reasonable interpretations in the context of the programs.

We note that under the NSPS program, we interpreted CAA 110(a)(4) to allow us to exempt "[m]aintenance, repair, and replacement which the Administrator determines to be routine for a source category." 40 C.F.R. 60.14(e)(1). In contrast, under the NSR program, historically we have interpreted the RMRR provision on a case-by-case basis, and we have not followed suit with the NSPS program in determining that the same activities are categorically exempt from RMRR. Thus, a modification that is categorically exempt under the NSPS could be potentially subject to NSR under our historical RMRR interpretation. It would be incongruous to argue that the identical statutory text incorporated into both the NSPS and the NSR provisions "clearly" could support only one meaning in the NSR context while it supports a different meaning in the NSPS context. Rather than saying CAA 111(a)(4) is clear but has two distinct meanings, common sense suggests the wording is ambiguous and allows for an expert agency to adopt reasonable interpretations in the context of the programs.

Commenters incorrectly claim that we have recognized all equipment replacements, including "like-kind" replacements, to be "physical changes" within the ordinary meaning of the word. While the final rule recognized that "change" is susceptible to multiple meanings, and outlined many common uses of the word, we did so to illustrate that there is no one, unambiguous, common meaning for the word. That is the essence of ambiguity.

Several commenters agreed with our view that "any" should be interpreted within the "broader frame of reference" of its statutory context. One commenter argued that Nixon undermined much of the logic in Wisconsin Electric Power Co. v. Reilly, 893 F.2d 901 (7th Cir. 1990) (WEPCO). That case contains sweeping language that repeatedly stressed that "any" compelled a broad interpretation of "any physical change."

As we noted in the final rule, we believe that the Court was correct to determine that the statute does not unambiguously allow all like kind replacements to avoid NSR, which was the position advanced by WEPCO in that litigation and which is the position advanced in this reconsideration by certain commenters. The Court's conclusion that the statute does not compel the outcome favored by WEPCO leads to a result that is completely consistent with our current view. Additionally, we continue to believe that the activities at issue in WEPCO were not routine maintenance, repair, and replacement under the rules at issue in that case. Furthermore, we continue to believe that, under the ERP, the equipment replacements at issue in that case would not automatically qualify as being excluded from major NSR. However, we agree with the commenter that Nixon calls into question the additional discussion in WEPCO that construes

"any" to compel a broad view of what is a "physical change." In our view, "any physical change" is an ambiguous term that can be defined by the Agency through rulemaking.

We note that establishing bright line criteria in a manner that reduces regulatory cost and provide certainty is a well-recognized and accepted approach to clarifying ambiguous terms in statutes. See Time Warner Entertainment Co. LP v. FCC, 240 F.3d 1126, 1141 (D.C. Cir. 2001). The ERP simply establishes bright lines for when an equipment replacement activity is automatically excluded from major NSR. We do not take the position that all like-kind or functionally equivalent replacements automatically are, or are not, changes. Instead, we simply draw criteria for when such activities are excluded from NSR and when the multi-factor RMRR approach applies.

4.1.17.2 American Trucking Association

Comment:

One commenter (SCAQMD, @2538) cited American Trucking Association: "EPA may not construe the statute in a way that completely nullifies textually applicable provisions meant to limit its discretion." Here, textually applicable provisions refer to changes resulting in an emissions increase.

Response:

The American Trucking decision further stated that technical determinations made by an expert agency are entitled to considerable deference by the Court. In the final rule, we did not extend the limits of our discretion; rather, we exercised the discretion confirmed by the Chevron Court to interpret ambiguous statutory language.

4.1.17.3 Ohio Edison

Comment:

One commenter (NYSDEC, @2521) cited the Court's observations in Ohio Edison that if the routine maintenance exemption were defined broadly, the exemption would swallow both the rule and specific provisions of the CAA and, more fundamentally, that the exception for "routine maintenance, repair or replacement" was not included by Congress in the CAA. The commenter believed the clear intent of the NSR program was to reduce the emissions of pollutants and ultimately improve the quality of the air. By allowing facilities to undertake modifications under the shield of the routine maintenance exemption without any consideration of environmental impacts, the rule runs afoul of the Congressional purpose and violates the CAA.

One commenter (SCAQMD, @2538) cited Southern Indiana Gas & Electric Co. wherein the Court stated, "Congress certainly did not inten[d] to allow for companies to make an 'end run' on NSR by allowing the routine maintenance exemption to swallow the modification rule."

Response:

As we discussed in responses to previous comments, the commenter is mistaken as to the intent of the NSR program and the overall impact of the ERP. We believe that, because the intent of the NSR program is not to reduce emissions, *per se*, but rather "to prevent [air quality] thresholds from being exceeded" (Alabama Power, 636 F.2d 323, 362) (which is accomplished by requiring the emission rates of new sources and modified existing sources correspond to state-of-the-art emission controls), the commenter's concerns that the rule runs afoul of the Congressional purpose and the CAA are unfounded. We believe that RMRR has been defined appropriately.

4.1.17.4 WEPCO

Comment:

One commenter (Iron and Steel Industry Trade Groups, @2544) believed that EPA clearly distinguished the WEPCO decision and concluded that it does not prevent it from adopting the ERP amendments. The commenter stated that the EPA explained that while the WEPCO Court decided that the projects at issue were physical changes, the WEPCO decision did not decide the question of where to draw the line between activities that should and should not be considered "changes." Furthermore, the commenter asserts that the EPA points out that the projects at issue in WEPCO could have cost more than the 20 percent threshold and would have been subject to case-by-case review. Thus, according to the commenter, the EPA accurately explains why the WEPCO decision does not deny the EPA the discretion to adopt the interpretation of "change" in the ERP.

Another commenter (NEDA/CAP, @2670) agreed with this view and thought that petitioners' argument that the final rule is inconsistent with WEPCO were misplaced. In the WEPCO case, the utility contested the EPA's determination that certain changes at the facility were not RMRR and hence required NSPS and NSR permitting review before they were constructed. Applying the Agency's own regulations and its interpretations of Agency regulations in lengthy case-specific analysis of WEPCO's equipment, the Court upheld EPA's determination that certain changes were not RMRR based on the specific facts in that controversy. The commenter asserted that the Court merely observed in the case that it was not addressing the reasonableness of the regulatory exclusion, but whether EPA had applied that exclusion in an arbitrary or unreasonable fashion. The commenter claims that the WEPCO opinion neither conflicts with the 20 percent threshold nor is probative regarding how EPA might redefine or clarify the exclusions from NSR applicability.

Two commenters (Clean Air Implementation Project, @2581; National Petrochemical & Refiners Association, @2545) further explained that the Court in WEPCO ruled that the projects at issue there were too large to be excluded from the meaning of physical change. The ruling does not deny the EPA discretion to adopt the interpretation of "change" in the ERP preamble. The Court did not address the question as to where a line should be drawn between what

activities should and should not be considered "changes." The Court simply concluded that the projects at issue there, which would have cost more than the 20 percent of replacement cost threshold in the ERP rule, would not be excluded as constituting RMRR.

Response:

The 20 percent cost threshold in the ERP is consistent with the decision of the WEPCO Court, to the extent that it would not automatically allow the activities performed at the WEPCO facility to constitute RMRR. We refer the reader to the ERP final rule for our discussion of the WEPCO decision. See 68 FR 61256-61257.

4.1.17.5 Alabama Power

Comment:

One commenter (NEDA/CAP, @2670) stated that petitioners asserted that physical changes at existing sources could not be excluded from NSR because the federal courts have held that the only modifications that can be exempted are changes that would not result in significant emissions increases. These assertions fail, however, for two reasons. First the Court in Alabama Power v. Costle, 623 F.2d 323 (D.C. Cir. 1979), did not examine any of the listed exclusions in the NSR rule which apparently were not challenged. A number of these exclusions from NSR, such as production increases or additional hours of operation, could result in significant emissions increases at a source. The Alabama Power Court's findings are confined to interpretation of the term "modification," such as significance levels from nonexcluded changes, the NSR emissions increase tests, and EPA's discretion to allow plantwide netting of contemporaneous emissions increases and decreases. In other words, while the Court apparently agreed that a number of changes that caused significant emissions increases could be offset under a bubble, it more importantly did not address whether other physical changes or changes in the method of operation EPA had excluded altogether from the definition of "physical change or change in the method of operation" were consistent with the CAA. Therefore, Alabama Power does not stand for the proposition that "any" change that results in an emissions increase is prohibited by the CAA. Second, the Alabama Power Court never stated that EPA did not have the authority to define "modification" another way, or for that matter, redefine modification or the exclusions to the phrase "physical changes or changes in the method of operation."

Another commenter (Environmental Groups, @2620) stated that the final rule ignores Alabama Power's admonition that "[t]he statutory scheme intends to 'grandfather' existing industries; but the provisions concerning modifications indicate that this is not to constitute a perpetual immunity from all standards under the PSD program." By allowing source owners to completely reconstruct their facilities through a set of nominally distinct projects carried out either simultaneously or serially, the ERP opens "vistas of indefinite immunity" from NSR.

Response:

In our final 1980 NSR rules, issued after the D.C. Circuit's final Alabama Power decision, 635 F.2d 323 (1980), we changed our approach to the definition of "increase" in the NSR context to specify that a change would trigger NSR if it would result in an increase over "actual annual emissions." 45 FR 52676 (August 7, 1980). At the same time, and notably, we restored the provisions stating that increases in hours of operation or production rate were not "changes." Id. at 52704.

It is important to understand what we did – and did not – decide in those final 1980 NSR rules. We did decide was that as a general proposition, we would better serve the purposes of the NSR program if we used "actual" rather than "potential" emissions for determining whether an activity at a new source results in an emissions increase. We did not decide that the NSR program could never allow an activity at a plant that increases its actual emissions but does not increase its "potential" emissions, to be excluded from the definition of change.

In particular, for example, we decided to retain the "hours of operation" and "rate of production" exclusions even though such changes might result in increases in "actual" emissions because not having the provisions "would severely and unduly hamper the ability of any company to take advantage of favorable market conditions." Id. Similarly, we retained the exclusion for "routine maintenance, repair and replacement" even though it too can result in emission increases. There is little doubt that increases in hours of operation and rates of production arguably could be understood to fall within the definition of modification, since increases in hours of operation and rates of production certainly may be argued to be changes in the "method of operation" of a plant. On balance, however, we determined that the definition of "physical change or change in method of operation" should not be read so broadly as to encompass hours of operation or production rate increases, so long as they are not prohibited by a federally enforceable permit.

In the revisions to the NSR program we announced on December 31, 2002, we reiterated our adherence to the view that as a general matter we should continue to use "actual" rather than "potential" emissions in determining what activities constitute "modifications" under NSR. We continue to believe that is correct, but we also believe we should amplify our reasons for holding this view and why that view is entirely consistent with the ERP rule. In determining the scope to give to "modification," we believe it is important to give weight to both aspects of what Congress decided in 1977. Congress decided that generally speaking, existing plants would not be subject to NSR, but that they would be subject to NSR when they made "modifications." It is also important to understand why Congress chose this point at which to impose NSR on existing plants: to avoid the need to impose costly retrofits, but require placement of new control technology at a time when it makes the most sense for it to be installed. See H.R. Rep. No. 294, 95th Cong., 1st Sess. 185, reprinted in 1977 U.S. Code Cong. & Admin. News at 1254; 116 Cong. Rec. 32,918 (Sept. 21, 1970) (remarks of Sen. Cooper). See also WEPCO, 893 F.2d at 909–910; National-Southwire Aluminum Co. v. EPA, 838 F.2d 835, 843 (6th Cir., Boggs, J., dissenting), cert. denied, 488 U.S. 955 (1988). A wholesale exclusion from the definition of modification of any activity that restores a plant to its potential to emit is not consistent with this

balance, since there are many activities that might have that effect but the conduct of which would be an extremely effective time for the placement for new control technology.

At the same time, we believe it is also important to give equal weight to the converse proposition that existing plants should not have to install new control technology in the ordinary course of their operations To require a source to do so would fail to give full effect to Congress' decision that existing sources generally would not be required to obtain permits. It would also subject these plants and the consumers who rely on them to enormous dislocation and expense. That is why we excluded RMRR of existing plants from that definition.

For similar reasons, we believe the ERP rule draws an appropriate line of demarcation between replacements that should not be treated as changes, and those as to which further consideration of the question is appropriate. Our rule states categorically that the replacement of components with identical or functionally equivalent components that do not exceed 20 percent of the replacement value of the process unit and does not change its basic design parameters is not a change and is within the RMRR exclusion. On the other hand, the rule contemplates the application of the multi-factor RMRR approach to identical or functionally equivalent equipment replacements that do not have these characteristics.

We believe this approach is consistent with the intended scope of "modification" under the NSR program, and is consistent with the Court's holding in Alabama Power. The Court in Alabama Power, noted that sources that "increase " pollution are required to go through NSR. Yet that decision did not address what constitutes an emissions "increase," nor does it preclude EPA from allowing facilities to consider their normal range of operations to determine whether a particular physical change is likely to cause an increase in emissions. In fact, the overall thrust of that decision was that the NSR provisions should be triggered only when a change at a facility results in an actual increase in pollution:

> Congress wished to apply the permit process, then, only where industrial changes might increase pollution in an area, not where an existing plant changed its operations in ways that produced no pollution increase. It is true that Congress intended to generate technological improvement in pollution control, but this approach focused upon rapid adoption of improvements in technology as new sources are built, not as old ones were changed without pollution increase. 636 F.2d at 401.

The final rule is consistent with that approach, and imposes NSR requirements only when a change in a facility results in emissions that exceed those emitted by the facility during its full range of operations.

We disagree with the commenters' reading of Alabama Power. Alabama Power does not directly address whether like kind replacements must be deemed to be physical changes. The Alabama Power Court addressed an exemption for physical changes that resulted in an emissions increase of less than 100 tons. It is in this context, where the replacement activity has been conceded to be a physical change, that the Court states that the modification definition "is

nowhere limited to physical changes that exceed a certain magnitude." Alabama Power, 636 F.2d at 400. In context, the "magnitude" language only addresses the size of the emission tonnage increase resulting from a "change," once the activity meets the definition of a "change." The Court did not have before it the question of whether the phrase "any physical change" is ambiguous. Contrary to the commenter's assertions, the cited portion of the Alabama Power opinion discusses a *de minimis* exemption only in the context of emission increases and not in terms of what constitutes a physical change ("EPA does have the discretion . . . to exempt from PSD review some emission increases on grounds of *de minimis* or administrative necessity"). *Id.*

Moreover, the *Alabama Power* Court also expresses the expectation that "bubbling" (or netting) in calculating emission increases and an allowance for physical changes that result in *de minimis* increases in emissions "will allow for improvement of plants, technological changes, and *replacement of depreciated capital stock*, without imposing a completely disabling administrative and regulatory burden." *Alabama Power*, 636 F.2d at 400. (emphasis added). Our subsequent experience has shown that, even with netting, a definition of "physical change" as encompassing as that supported by these commenters is inadequate to allow for appropriate replacement of depreciated capital stock. See "New Source Review: Report to the President", June 2002 (Docket No. OAR-2002-0068, Document No. 0004). It simply is not the case that the *Alabama Power* opinion analyzes and requires the commenters' encompassing construction of "any physical change." Equally important, a narrow interpretation of ERP as advocated by commenters would create hurdles for ensuring that a process operates reliably, safely, and efficiently, thereby increasing the likelihood that net emissions would be higher.

In response to the commenter who believed that grandfathering of existing sources was intended to extend indefinitely, an existing source – whether grandfathered or not – triggers NSR only if it makes a physical or operational change that results in an emissions increase. Thus, a facility can conceivably continue to operate indefinitely without triggering NSR – making as many physical or operational changes as it desires – as long as the changes do not result in emissions increases. This outcome is an unavoidable consequence of the plain statutory language and is at odds with the notion that Congress intended that every major source would eventually trigger NSR. Moreover, there is nothing in the legislative history of the 1977 Amendments, which created the NSR program, to suggest that Congress intended to force all then-existing sources to go through NSR. The ERP rule is consistent with this intention.

4.1.18 Applicability of Using of Building Codes

Comment:

Several commenters (Environmental Groups, @2620; New York et al., @2555; New Jersey, @2671) were opposed to using building codes to determine RMRR applicability. One commenter (Environmental Groups, @2620) in particular provided extensive comments on this topic and believed that the EPA's plan to support the RMRR applicability criteria is not appropriate.

The RMRR is an EPA-invented exclusion from the statutory phrase, "any physical change in ... a stationary source." None of the cost-based applicability thresholds in the building codes identified by EPA stem from the term,"any physical change." The EPA has not and cannot show that approaches used to define building code terms (e.g., rehabilitation, restoration, remodeling) are relevant in interpreting the term at issue here, namely,"any physical change."

In devising cost-based definitions for building code terminology, state and local entities were defining terms of their own creation. The EPA, by contrast, according to the commenters, is implementing a term of Congress' creation. Accordingly, the commenters report that, the EPA is constrained in a way that the authors of cost-based applicability thresholds in building codes were not. Specifically, one commenter stated that the EPA must effectuate the intent of Congress. The agency has no authority to shunt Congress' language aside and embark upon policy approaches that it finds more to its liking. Even if the issue here were governed by Chevron Step Two (which it is not), the EPA's task still would be to interpret the statutory language, not to ignore it in favor of an approach of its own choosing.

Congress did not, according to the commenters, to use the EPA 's phrasing, "consider approaches used in building code applicability when establishing criteria for RMRR determinations," because Congress has never enacted an RMRR exclusion, or any other exclusion for that matter, from the statutory term"any physical change in ... a stationary source." Moreover, there is no indication that Congress considered "approaches used in building code applicability" in enacting the statutory definition of "modification." Assuming that Congress considered any cost-based applicability thresholds at all (a proposition for which the EPA has produced no evidence), it rejected them in favor of a pollution-based threshold (i.e.,"any physical change in ... a stationary source which increases the amount of any air pollutant emitted by such source.)"

The commenters assert that the EPA's resort to building codes ignores a fundamental feature of Section 111(a)(4). While broadly referencing "any physical change," Section 111(a)(4) provides that NSR is triggered only if a change "increases the amount of any air pollutant emitted by such source" or "results in the emission of any air pollutant not previously emitted." Thus, the activities that trigger NSR are ones that themselves harm the purposes of the statute (i.e., emissions-increasing activities).

Building codes operate very differently. Under those codes, the activity to which the cost threshold applies does not itself necessarily harm the goals of the statute. For example, a building renovation typically does not cause a fire, earthquake, or flood. Thus, the issue faced by code writers is not how to avoid or mitigate adverse impacts caused by the renovation itself. Instead, the issue is whether the renovation, by virtue of the amount of funds invested in it, is an opportune time to require upgrading of the building to provide stronger protection against fires, earthquakes, and floods that are not the result of the renovation. New Source Review applicability, however, is premised on whether a physical or operational change increases emissions, and thus is not limited to those instances when the EPA or a State believes it would be an opportune time to install controls. The EPA's "opportune time to install controls" argument

fails when considered on its own, and the agency cannot lawfully or rationally resurrect that argument through the back door, under the guise of an analogy to State and local building codes.

One commenter stated that EPA has not claimed and cannot claim that State and local building codes are focused on the items that EPA asserts authority to exempt. For example, the term "substantial improvement," as used by Horry County, South Carolina, means "any combination of repairs, reconstruction, alteration, or improvements to building, taking place during a five-year period, in which the cumulative cost equals or exceeds fifty percent of market value of the building." Thus, this code exempts "alteration[s]" and "improvements," so long as the cost is less than fifty percent of market value. That approach is not lawful even under the EPA's narrow interpretation of the term "physical change." Therefore, the percentage figures chosen by state and local governments in furtherance of such an approach offer no lawful or reasoned basis for the EPA's rule.

The reasoning underlying the percentages selected for building code applicability thresholds would not survive review under the "arbitrary and capricious" standard. Notable in this regard is the observation by the EPA that the 25/50 rule used widely until the late 1970s was found wanting and was replaced in most jurisdictions by a code whose applicability is "based upon the type of work being done" rather than on the cost of the work. In 1978, the Senate Banking, Housing and Urban Affairs Committee held a hearing on the impact of building codes that mandated current code compliance for rehabilitated buildings. Witnesses testified that the 25/50 rule was arbitrary, created inconsistencies, was unenforceable, and obstructed rehabilitation. The National Institute of Standards and Technology also found that provisions such as a 25/50 rule were impediments to building rehabilitation. In the late 1970's, the 25/50 rule was removed from model codes. For its part, FEMA seems to have selected 50 percent as its cost-based threshold for "substantial improvement" for the arbitrary reason that 50 percent is halfway between zero and one hundred percent.

Another commenter (National Petrochemical & Refiners Association, @2545) stated that the use of a bright line percentage for building permits is common practice in cities and counties throughout the U.S. It is used as a means of determining whether a building modification should be defined as new construction and subject to the building codes covering new construction. The commenter discussed this practice of using a "bright line" for reconstruction and rehabilitation in the housing industry with Director of Affordable Housing Research and Technology in the Office of Policy Development and Research at HUD. According to HUD, virtually all localities in the United States have some form of percentage of the rehabilitation cost or use the model rehabilitation provisions in "Smart Codes" in their local building codes. This common sense approach to use of a "bright line" to facilitate local decisions affecting construction, maintenance, and repair is exactly the purpose of the ERP final rule.

Response:

We recognize that the wording of building codes generally differ from the CAA(a)(4). Our analysis of building codes would not be relevant to identifying Congressional Intent behind

"any physical change" or other terms of CAA 111(a)(4). Assuming that the Court agrees that "any physical change" is ambiguous, our building code analysis is relevant to the reasonableness of identifying significant changes by relative cost of the activity in question to the larger unit. The building code analysis identifies that such an approach has precedent in municipal regulation.

4.1.19 *De Minimis* Increase

Comment:

One commenter (SCAQMD, @2538) stated that the ERP lacks any legal basis because its exemption from the definition of "modification" is divorced from any tie to the statutory definition of "modification." The commenter noted that applicable case law (Alabama Power) holds that the EPA's authority to craft exemptions from the definition of "modification" is limited to *de minimis* circumstances (or administrative necessity). Other commenters (Environmental Groups, @2620; Calpine Corporation, @2588) supported this view.

According to the commenters, despite the EPA's contention that the term "physical change" is ambiguous, courts have not had difficulty in interpreting the language. But even if the term were ambiguous, the EPA is not free to define it in a way that bears no relationship to legislative intent. Since Congress was clearly concerned about an increase in emissions, rather than the cost of the change, the EPA must craft its definition with reference to the amount of emissions increase involved, rather than with reference to cost. The EPA did not try to justify this exemption as *de minimis*, which is the only proper basis for exemption.

One commenter (Environmental Groups, @2620) further elaborated on the EPA's authority to exclude only *de minimis* emissions increases. As the D.C. Circuit made clear in Alabama Power, the *de minimis* principle is the only possible source of authority for the EPA's regulatory exclusion of RMRR from the statutory term "any physical change." The EPA continues to acknowledge that the RMRR exclusion "could be justified as *de minimis*." Indeed, in the EPA "conformity" regulations that exclude "[r]outine ... activities" from the CAA term "any activity," the agency expressly presents "routine" activities, including "routine maintenance and repair activities," as ones that "would result in no emissions increase or an increase in emissions that is clearly *de minimis*." In promulgating those regulations, the EPA has acknowledged that the exclusion of "routine" activities is "based on the premise that such projects are not expected to have significant air impacts," and that "actions which are *de minimis* should not be required ... to make an applicability analysis."

The commenter states that until it promulgated the current rule, the EPA itself asserted that its authority to promulgate the RMRR exclusion derived exclusively from the *de minimis* principle. The commenters report that the EPA accordingly insisted that it had "extremely limited authority to exempt activities from the definition of 'modification' under the Clean Air Act." The commenter claims that the ERP, however, covers activities that result in non- *de minimis* emissions increases. The EPA and industry admit as much. According to the

commenter, the rule thus exceeds the bounds of the *de minimis* principle. The commenter states that because that principle is the only possible source of authority for EPA's regulatory exclusion of RMRR from the statutory term "any physical change," EPA's rule exceeds the agency's statutory authority.

Another commenter (New York et al., @2555) believed that EPA erred in suggesting that it need not justify the exemption as a *de minimis* exemption. According to the commenter, there is no merit to EPA's contention (made in response to the Stay Motion) that because Alabama Power was decided before Chevron, the former's analysis is no longer relevant where a statute is found to be "silent or ambiguous." The commenter claims that the CAA is neither silent nor ambiguous here. Moreover, the D.C. Circuit reaffirmed the vitality of Alabama Power when it held in Environmental Defense Fund (EDF) v. EPA, 82 F.3d 451 (D.C. Cir. 1996), that the Agency's authority to create exclusions is limited to *de minimis* activities. As a result, the Alabama Power Court's interpretation of this unambiguous statutory provision is still governing law.

In contrast to these comments, two commenters (Clean Air Implementation Project, @2581; National Petrochemical & Refiners Association, @2545) stated that in explaining why it is not necessary for the EPA to rely on a *de minimis* rationale, the EPA noted that it has adopted exclusions since the enactment of the modification definition in 1970 that could not qualify as "*de minimis*." The EPA correctly pointed out that, even though it has interpreted the meaning of "change" in its NSR enforcement cases to be quite narrow and consistent with a *de mininis* rationale, the EPA has the authority to interpret this term through rulemaking. The EPA's expressed view of the meaning of the term, as reflected in the ERP rule preamble, is in fact more consistent with the overall intent of the NSR program to only require changes that increase a source's emitting capacity to trigger NSR.

Another commenter (Pinnacle West Capital Corporation, @2584) stated that any interpretation of the CAA which would require the installation of BACT for every plant project other than *de minimis* activities is simply untenable. One industry analysis indicated that projects similar to those identified by EPA in the NSR utility litigation typically occur at each power plant every 18-24 months. According to the commenter, it is inconceivable that Congress could have intended existing plants to trigger NSR with such frequency, particularly since each NSR review and permitting process typically takes at least one year. The commenter claims that such an interpretation would effectively force existing plants into a state of perpetual NSR review, a result that flies in the face of clear Congressional intent that NSR apply to existing plants only in specific, exceptional circumstances. The commenter states that, moreover, such a sweeping application of NSR to existing plants would render entirely superfluous the grandfather provision for existing sources. A sweeping interpretation of NSR that captures nearly all plant projects, including routine maintenance and efficiency projects, is inconsistent with the intent of the CAA and is not practically or administratively feasible. According to the commenter, the ERP's built-in safeguards, including the provision excluding projects that increase maximum hourly electric output or steam flow rates, further ensure that such projects are accomplished in an environmentally sound manner.

Response:

Our policy choice in defining a "physical change" is consistent with the statute because it strikes an appropriate balance among the purposes of the CAA, including protecting the Nation's air resources, promoting the public health and welfare and the productive capacity of its population. The bright line criteria of the ERP will promote safety, reliability, and efficiency in processes affected by this rule. As explained more fully in the preamble to the ERP final rule, in the Federal Register notice accompanying this document, and elsewhere in this TSD, we believe that we have discretion to interpret the definition of modification in the NSR program and that our interpretation in the ERP reasonably implements the statute.

4.1.20 Interpretation of "Routine"

Comment:

One commenter (Environmental Groups, @2620) stated that according to the "Legal Basis" section in EPA's preamble to the final rule, the ERP "states categorically that the replacement of components with identical or functionally equivalent components that do not exceed 20 percent of the replacement value of the process unit and does not change its basic design parameters is not a change and is within the RMRR exclusion." Later in the same section of the preamble, the EPA explains that the ERP rests upon the agency's reinterpretation of the term,"routine maintenance, repair and replacement."

According to the commenter, the EPA has acknowledged that the word "routine" means "habitual, regular, ordinary." Other synonyms are typical, customary, and everyday. The commenter feels that both industry and the EPA concede, however, that the ERP is so broad as to cover projects that occur only rarely in the lifetime of a unit. Projects that occur only rarely in the lifetime of a unit are not habitual, regular, or ordinary for that unit, and the EPA does not claim otherwise. Moreover, while current EPA regulations acknowledge that refurbishment activity is not "routine" if it necessitates shutting down a production unit, the ERP is so broad as to cover projects that do necessitate shutting down a production unit. Indeed, in previous submissions, the commenter claimed to have demonstrated that the ERP would cover virtually all of the modifications at issue in the government's NSR enforcement actions, including the modifications that necessitated shutdowns. This broad coverage exempts projects that increase emissions significantly, and thus do not qualify as *de minimis*.

The commenter states that construing "routine" to mean "routine in a particular industry" goes well beyond *de minimis* principles, for many physical activities that are routine in a particular industry increase emissions by non-*de minimis* amounts. For example, in the EPA's NSR enforcement case against SIGECO, the company asserted that the alleged source refurbishments that increased emissions by substantial amounts were routine in the industry. The commenter claims that because the *de minimis* principle is the only possible source of the EPA's authority to exclude RMRR from the statutory term "any physical change," the EPA lacks

authority to read "routine" to mean "routine in a particular industry." According to the commenter, for this reason alone, the ERP is unlawful.

Response:

In the final rule, we did not base the determination of ERP applicability on the frequency at which an activity takes place. To do so would have been akin to developing specific lists of RMRR activities for each industry, which we rejected because "there are simply too many activities in too many industries to effectively improve major NSR implementation through creation of lists." We added that "lists would be a 'snapshot in time' that would need to be reviewed and periodically updated for each industry sector." 68 FR 61268. The same would be true for setting thresholds based on frequency.

The commenter also argues that the types of activities that would be considered "routine" under the final rule could not be considered *de minimis*. We do not believe we are constrained by the *de minimis* principle in this case.

4.1.21 ERP Imposes Greater Administrative Requirements

Comment:

One commenter (UARG@2615) expressed concern that the ERP imposed greater administrative requirements on sources than prior to the RMRR rule. In particular, they interpret the ERP as requiring approval by a regulatory authority of RMRR determinations for projects exceeding the ERP 20 percent replacement cost threshold.

Response:

We do not agree with the commenter's interpretation of the ERP. The text of the ERP rule is structured such that projects that meet the four ERP criteria are automatically deemed to be RMRR, without the need for regulatory approval. However, the rule does not require approval for RMRR projects that do not qualify for the ERP. Rather, projects not qualifying for the ERP simply must apply the multi-factor RMRR approach.

4.2 Basis for Selecting 20 Percent of the Process Unit Replacement Cost as the Threshold to Determine if a Replacement was Routine

4.2.1 Supports EPA's Selection of the 20 Percent Replacement Cost to Determine if a Replacement was Routine

4.2.1.1 The Basis for EPA's Selection

Comment:

Six commenters (Equipment Replacement Rule Coalition, @2514; Solar Turbines, @2540; The National Petrochemical & Refiners Association, @2545; UARG, @2615; PacifiCorp, @2546; Hawaiian Electric Company, Inc., @2586) stated that they disagreed with the petitioners that the EPA's basis for selecting the 20 percent replacement cost of the process unit to determine if a replacement was routine was arbitrary and capricious. The commenters also supported the 20 percent replacement cost threshold.

Response:

In selecting the percent cost threshold, it is important to note that it is but one of the four requirements that must be met to qualify as automatically RMRR under the ERP. Activities falling below the 20 percent replacement value threshold are not exempt from major NSR under the ERP if they do not meet the other necessary criteria in the final rule. These other criteria require that the replaced component: (1) be identical or functionally equivalent; (2) does not alter the basic design parameters of the process unit; and (3) does not cause the process unit to exceed any emission limitation or operational limitation (that has the effect of constraining emissions) that applies to any component of the process unit and that is legally enforceable. Of all of these qualifiers, including the 20 percent threshold, the key qualifier is that the equipment replacement is "like-kind" (i.e., identical or functionally equivalent). This criterion supports the basis for the ERP that the process unit undergoes "no change" as a result of the activity. Thus, the 20 percent cost threshold serves primarily as an administrative threshold, by which activities that fall beneath threshold and which also meet the other rule criteria safeguards qualify automatically as RMRR, while those activities that meet the other criteria but are over the 20 percent cost threshold may still be RMRR, but only by applying the multi-factor RMRR approach.

Thus, our goal in selecting the cost threshold is not to create a bright line below which any activity is excluded solely based on its cost. Rather, the threshold is intended to operate in combination with the three other ERP criteria as a screen for determining when the multi-factor RMRR approach is applicable and when it is appropriate to automatically exclude an activity as RMRR based on satisfying the three non-cost ERP criteria. As discussed in this document elsewhere, we continue to believe that 20 percent is an appropriate threshold for this purpose.

The available data indicate that the 20 percent threshold will effectively identify those more significant projects for which applying the multi-factor RMRR approach is prudent.

Another important factor of the ERP is that related activities must be aggregated in the same way as they would have to be aggregated for other NSR applicability purposes. Under our current policy of aggregation, two or more replacement activities that occur at different times are not automatically considered separate activities solely because they happen at different times. In the case of replacing an entire facility, it is not feasible that an owner or operator could successfully argue that multiple projects occurring one after the other are not related to one another and should not be aggregated for applicability purposes. These other rule criteria play an important part in determining what replacements can qualify for the ERP.

Record/Preamble Support

Comment:

Eight commenters (NEDA/CAP, @2670; Iron and Steel Industry Trade Groups, @2544; The National Petrochemical & Refiners Association, @2545; Hawaiian Electric Company, Inc., @2586; Equipment Replacement Rule Coalition, @2514; UARG @2615; Xcel Energy, @2551; U.S. Chamber of Commerce, @2593) stated that the EPA summarized the supportive record in the preamble to the final rule and included support for the basis of its selection of the 20 percent replacement cost criterion in the rulemaking record.

Response:

We agree that there was support for the promulgated 20 percent replacement cost threshold in both the record and preamble for the final rule. The preamble to the final rule provided a detailed discussion as to why we felt that there was a basis for the promulgated 20 percent replacement cost threshold. The rulemaking record and additional information developed in this action support the discussion in the final rule preamble and the basis for the selection of the 20 percent replacement cost threshold in the final rule.

Case Study Support

Comment:

Six commenters (The National Petrochemical & Refiners Association, @2545; UARG, @2615; Iron and Steel Trade Groups, @2544; Equipment Replacement Rule Coalition, @2514; Alliance of Automobile Manufacturers, @2574; Xcel Energy, @2551) argued that the petitioners misread or misinterpreted EPA's use of six industry case studies and that they do not serve to exempt all "routine" equipment replacement activity for two of the industries.

One commenter (Dairyland Power, @2553) believed that the replacement cost analyses the EPA conducted of six industries and the analysis of the cost involved in the WEPCO case clearly provided an adequate basis for adopting a 20 percent threshold.

One commenter (Alliance of Automobile Manufacturers, @2574) explained that the replacement costs presented in the case studies reflected replacement projects that take place every 3 to 5 years, and that replacement projects occurring less frequently (e.g., every 5 to 10 years) may undertake much larger replacement projects (up to $60 to 100 million in the automobile manufacturing sector). Two commenters (Equipment Replacement Rule Coalition, @2514; UARG, @2615) argued that some activities evaluated in the case studies falling below the 20 percent replacement value threshold may not qualify as RMRR under the ERP rule because they do not meet the other necessary criteria stated in the final rule.

One commenter (UARG, @2615) noted that the six industries assessed in the case studies varied widely and provided a "useful scoping assessment" that supports the 20 percent threshold.

Response:

Much of the comment on the 20 percent replacement value threshold focused on our use of six non-utility case studies that we believe support our selection of a 20 percent replacement value threshold. Though equipment replacement activities vary widely across industry sectors, the six industry sector studies (pulp and paper mills, automobile manufacturing, natural gas transmission, carbon black manufacturing, pharmaceutical manufacturing, and petroleum refining) indicated that equipment replacement activities of the type allowed under the ERP generally do not cause increases in actual emissions. Additionally, though the six studies address specific case examples from only a part of regulated industry, the data indicated that most typical replacement activities fall within the 20 percent threshold, and that some major replacement activities will cross the 20 percent threshold and be subject to the multi-factor RMRR approach.

We received a number of comments through the reconsideration process that were supportive of the calculations performed in the case studies of the six industries. Many of these comments came from the trade groups representing industries that were analyzed in the case studies. These organizations – including the American Forest & Paper Association, Alliance of Automobile Manufacturers, National Petrochemical & Refiners Association, and Interstate Natural Gas Association of America – supported the analyses conducted and conclusions reached for each of their industries in the case studies. In some cases, these trade groups provided further amplification of their cost ranges for projects, which provided additional depth and support to the conclusions of the report. Other commenters stated that the case studies failed to provide sufficient data to support the 20 percent cost threshold.

While most industry commenters agreed that the 20 percent threshold was adequate and reasonable and was well supported by available data, several industry commenters provided additional data as further support that the 20 percent threshold is appropriate. For example, Solar Turbines estimates for their products (turbines of 1 to 14 megawatts in capacity), a periodic

refurbishing of the gas producer unit – normally performed every 4 years – would cost 6 to 14 percent of the replacement cost, depending on the extent of deterioration. The Gas Turbine Association noted that the restoration cost as a percentage of total equipment replacement cost varies significantly with turbine unit size. According to the Gas Turbine Association, one supplier estimated a range from 9 percent for a combined cycle system to over 20 percent for a simple cycle system. Other commenters – including the National Petrochemical & Refiners Association and the American Forest & Paper Association – further supported the 20 percent equipment replacement cost threshold providing lists of their plant maintenance activities, many of which were beneath 20 percent in cost, and explained why they felt that their listed projects are routine. We have evaluated the projects described by commenters and, assuming that they would meet all other criteria of the ERP, these projects would not be the types of activities that would be subject to the multi-factor RMRR approach.

We should note, however, that by referring to these lists provided by industry, we are not categorically determining that these activities are RMRR. As we have explained above, the 20 percent threshold is only one part of the ERP. Therefore, each activity must be evaluated against not only the 20 percent cost threshold but also the other three rule criteria before making a determination that these activities are RMRR under the ERP.

Finally, we never claimed that the case studies encompassed all equipment replacement activities at these industries. Further, we recognize that the case studies do not justify exempting all "routine" equipment replacement activity in any one of the case study industries. As discussed elsewhere in this technical support document, activities falling below the 20 percent replacement value threshold are not exempt under the ERP if they do not meet the other three criteria of the rule. It is important to note that the case studies were performed prior to decisions on the exact form and content of the final rule. If the studies had chosen a different set of assumptions (e.g., for costing of projects, or in defining the process unit), they may have identified additional equipment replacement projects exceeding 20 percent in cost. Furthermore, these studies showed industry-wide results, not plant-specific determinations. Under the ERP, if a plant-specific replacement activity does not satisfy all four of the criteria that must be met to qualify for the RMRR exclusion, then the activity is subject to the multi-factor RMRR approach. The studies indicate that larger, less frequent maintenance activities could exceed the ERP cost threshold and, consequently, would be subject to the multi-factor RMRR approach. Thus, we do not believe there is a basis, nor did the petitioners provide one, that all equipment replacements in these industries would be exempt under a 20 percent cost threshold.

We continue to believe that this information on other industrial sectors in addition to the information on the electric utilities supports our 20 percent cost threshold. The case studies, coupled with the additional comments received in this action, support our view that the 20 percent value that we separately determined to be appropriate for electric utilities is appropriate for industry as a whole.

Other Industry Experience/Data Support

Comment:

Several commenters (Solar Turbines, @2540; Gas Turbine Association, @2519; Interstate Natural Gas Association of America,@2656; North American Insulation Manufacturers Association, @2582/2583; WEST Associates, @ 2573; Midwest Generation, @2552; U.S. Chamber of Commerce, @2593; The National Petrochemical & Refiners Association, @2545; American Forest & Paper Association, @2547) provided industry data in support of the 20 percent replacement cost threshold.

One commenter (Solar Turbines, @2540) reaffirmed their support of the basis for selecting a 20 percent cost threshold. The commenter estimated the cost of a routine overhaul for their products (turbines of 1 to 14 megawatts) to fall within the range of 6 to 14 percent of the replacement cost of a similar process unit. The commenter explained that the replacement cost of a similar process unit was determined by multiplying the turbine package cost by a factor of 2 and by a factor of 3. These factors are budgetary installation factors which, when multiplied by the direct equipment cost, are used to approximate the installed cost of the process unit or the "equipment replacement value" of the unit. Such budgetary installation factors are commonly employed throughout industry for budgetary cost estimation purposes. The use of two factors is justified because initial investment costs for gas turbine installations can vary significantly depending on the application. The commenter noted that the wide range of costs demonstrates that the 20 percent ERP level is justified (and not arbitrary). Additional justification is provided in the docket for routine gas turbine maintenance activities, which demonstrates that the 20 percent threshold is not arbitrary. The commenter noted that additional justification of the 20 percent level (or higher) is provided in the docket at OAR-2002-0068-1211, 2210, and 2519.

One commenter (Gas Turbine Association, @2519) provided data on maintenance costs as a percentage of the ERV for: (1) gas turbine overhaul and maintenance; (2) steam turbine overhaul and maintenance; and (3) other equipment maintenance and replacement. In summary, the commenters said that their compiled information shows a wide range of costs for turbine maintenance activities and demonstrates that many routine maintenance activities for these units are well above the 20 percent ERP exclusion. The commenter supported the 20 percent replacement cost "bright line test," below which, maintenance and replacement activities can proceed (assuming the other criteria are met). The commenter recommended that the EPA clarify activities such as foundation repairs and replacements, crankshift replacements, and engine regrouts as routine maintenance as an incentive for continued operation and installation of environmentally beneficial cogeneration facilities.

One commenter (Interstate Natural Gas Association of America, @2656) stated that results of their industry-wide RMRR cost study indicated that the 20 percent ERP cost threshold is both reasonable and appropriate for the INGT industry sector. Similar to the EPA findings with respect to the electric utility sector RMRR data, the commenter stated that the INGT industry cost data showed that the majority of individual replacement activities and limited groupings of such activities would, in fact, qualify for the ERP at the 20 percent replacement cost threshold. Certain individual activities and larger groupings of activities in general would exceed

the 20 percent ERP threshold and thus would be subject to the multi-factor RMRR approach. The commenter qualified that their study demonstrated that the 20 percent ERP cost threshold would be effective in distinguishing between equipment replacement activities and groupings of such activities that should be categorically excluded from NSR from those that would be subject to the multi-factor RMRR approach.

One commenter (North American Insulation Manufacturers Association, @2582) provided that the a survey of several NAIMA members confirmed that RMRR activities that occur on a regular basis can range from 3 to 20 percent of the replacement value of the process line, supporting the EPA's 20 percent cost threshold.

Two commenters (WEST Associates, @ 2573; Midwest Generation, @2552) commented that the EPA has reviewed extensive data for the utility industry and knows which replacement activities are commonly encountered to ensure continued reliability and efficiency of generating units. These commenters believed that these activities, for the most part, will meet the 20 percent threshold and will qualify for the exclusion and that the EPA has provided support for the 20 percent threshold.

One commenter (U.S. Chamber of Commerce, @2593) stated that the EPA conducted an extensive review of cost studies associated with a number of industries, as well as data submitted by UARG and other commenters (including the American Lung Association), and that the data supports the EPA's calculation of the 20 percent threshold.

One commenter (The National Petrochemical & Refiners Association, @2545) surveyed its members (petroleum refining industry) to verify the information in the final rule concerning the 20 percent threshold. The response from 70 percent of the facilities representing 80 percent of the domestic refining capacity supported the EPA's 20 percent threshold as being reasonable and consistent with the operations at a petroleum refinery.

One commenter (American Forest & Paper Association, @2547) stated that the RIA for the ERP rule included a detailed report of the pulp and paper industry which supported the EPA's decision to set the threshold at 20 percent.

One commenter (Council of Industrial Boiler Owners, @2675) stated that the EPA's regulatory analysis of the ERP rule provides an analysis to assess the effect of a 10 percent, 25 percent and 50 percent test on the behavior of industrial manufacturing sectors on key process equipment. Based on analysis using the Integrated Planning Model (IPM) for the entire power industry, which contributes the majority of emissions from all industrial sectors and which is believed to be representative of the results expected from other industries, the analysis showed that the breadth of the RMRR exclusion promulgated in the EPA's ERP provision "would have little impact on the emissions reductions that will be achieved in the future under the major NSR program."

Response:

The EPA agrees with the commenters that there was a substantial amount of data/information that supported the decision to set the threshold at 20 percent. These data show that many like-kind replacements occurring at facilities typically cost less than 20 percent of the process unit's value and do not increase emissions. As noted by the commenters, we conducted cost studies for a number of industries (the cited case studies), were provided extensive information on the electric utility industry, and analyzed other data were submitted by other commenters, such as the American Lung Association, to support the 20 percent equipment replacement value threshold.

The EPA appreciates the additional supporting information provided by commenters (Interstate Natural Gas Association of America, @2656; Gas Turbine Association, @2519; Solar Turbines, @2540; National Petroleum Refiners Association, @2545) further supporting the 20 percent equipment replacement cost threshold in the final rule.

Statutory History/Regulatory History/Congressional Intent/Case Law

Comment:

Several commenters (El Paso Corp. Pipeline Group, @2561; Dominion, @2562; The Large Public Power Council, @2563; Edison Electric Institute, @2567; Xcel Energy, @2551; US Chamber of Commerce, @2593; Duke Energy, @2564; The Aluminum Association, @2543) stated that the basis for selected of the 20 percent cost threshold is supported by Congressional intent, statutory history, and regulatory history.

Two commenters (El Paso Corp. Pipeline Group, @2561; Dominion, @2562) stated that the statutory and regulatory history of the NSR requirements showed that the EPA could exclude from the meaning of "change" the replacement of components that are identical or functionally equivalent to the replaced components without establishing any replacement cost threshold whatsoever. Thus, it was clearly permissible for the EPA to provide that replacement projects that satisfy the 20 percent cost of replacement threshold, in addition to the other ERP rule criteria, are excluded from NSR applicability.

One commenter (Edison Electric Institute, @2567) noted that the CAA's NSPS define 50 percent as the upper bound of the EPA's discretion to define a modification on the basis of replacement cost.

One commenter (The Aluminum Association, @2543) stated that the EPA established a reconstruction benchmark of 50 percent of the capital cost for determining NSPS applicability on a modified source. The commenter argued that since the promulgated 20 percent allowance under NSR is more stringent, it provides ample environmental protection to promote NSR review of sources that have significant modifications.

One commenter (WEST Associates, @2573) agreed that the reconstruction provisions of NSPS differ from the modification thresholds of NSR. Therefore, the commenter supported a

replacement threshold below 50 percent of unit replacement cost. The EPA has reviewed extensive data for the utility industry and knows which replacement activities are commonly encountered to ensure continued reliability and efficiency of generating units. These activities, for the most part, will meet the 20 percent threshold and will qualify for the exclusion. The commenter believed the EPA has provided more than adequate basis for its final rule and supported the 20 percent threshold.

One commenter (Dominion, @ 2562) stated that when Congress enacted the NSR program in 1977, the existing NSPS definition of "modification," adopted in the 1970 CAA Amendments, was carried over and used for the new NSR program. The commenter explained that the definition of "modification" excludes from NSPS applicability those activities that serve to maintain facilities as designed, constructed and permitted, provided these activities do not result in costs that would exceed 50 percent of the replacement value of the facility in question. The commenter believed that the ERP rule preserves the basic design provisions of the NSPS exclusion but limits the RMRR costs to not more than 20 percent of the facility replacement cost.

One commenter (Council of Industrial Boiler Owners, @2675) supported the EPA's proposal to use a 50 percent threshold, similar to that used in NSPS and the NESHAP program for reconstruction. They went on to state that the NSPS provisions also include a modification provision which is triggered if there is an increase in the maximum hourly rate of emissions the unit is capable of emitting. The EPA's final ERP rule addressed the existing source exclusion for RMRR, yet it is more protective than EPA's existing source exclusion under either the NSPS or NESHAP programs. In the final ERP rule, the commenter acknowledged that the EPA reduced the replacement threshold from 50 percent to 20 percent, and included other safeguard provisions. The commenter believed that the final provisions are reasonable in that they ensure that functionally equivalent repair and replacement projects can improve efficiency or reliability, but not the basic parameters of the unit which limit its capacity (either measured on an input basis or an output basis). In addition, the commenter contends that these limiting provisions ensure the replacement unit cannot emit more pollution than the old unit was allowed to emit. Thus, they argue, it includes an element similar to the NSPS modification provision, yet it is more restrictive than the NSPS or NESHAP reconstruction provisions.

One commenter (Duke Energy, @2564) stated that prior to the EPA promulgating the ERP Rule, the only objective cost limit or threshold was the NSPS 50 percent reconstruction threshold. The 50 percent NSPS threshold restricts potential applicability of the NSPS reconstruction provision to individual projects whose costs exceed 50 percent of the fixed capital cost of constructing a comparable new unit. The NSPS reconstruction threshold has a long legislative and regulatory history, and while the ERP rule's 20 percent cost threshold is considerably more stringent, its use is appropriate. According to the commenter, if the 50 percent reconstruction threshold is legal under the NSPS provisions of the CAA, which it clearly is, then the ERP rule's significantly more stringent 20 percent cost threshold is clearly not arbitrary and capricious under the NSR/PSD provisions, as some have claimed.

One commenter (Clean Air Implementation Project, @2581) believed that the statutory and regulatory history of the NSR requirements show that EPA could exclude from the meaning of "change" the replacement of components that are identical or functionally equivalent to the replaced components without establishing any replacement cost threshold whatsoever. Thus, it was clearly permissible for the EPA to provide that replacement projects that satisfy the 20 percent cost of replacement threshold, in addition to the other ERP rule criteria, are excluded from NSR applicability. The commenter believed that the EPA has authority under the CAA to adopt an equipment replacement cost threshold greater than the 20 percent level included in the final ERP rule. However, in light of the fact that sources can demonstrate applicability of the RMRR exclusion using the multi-factor approach if they exceed that threshold, they supported EPA's adoption of the 20 percent cost threshold and urge that it be retained in the ERP rule.

One commenter (UARG, @2615) argued that the EPA considered the threshold screening provision as being "akin to the long-established reconstruction provision under the NSPS program," in which a 50 percent replacement value limit is used to identify those activities or projects for which further review is warranted. The commenter stated that the EPA explained that the 50 percent NSPS threshold is a "threshold intended to alert permitting authorities to significant projects and allow case-by-case decisions based on a series of regulatory factors." The commenter went on to say that the EPA replicated aspects of the NSPS concept in the ERP by identifying a threshold below which there is no need for further inquiry into whether an activity qualifies for the ERP, and above which there is a need for a case-by-case determination.

One commenter (PacifiCorp, @2546) expressed that the 20 percent threshold is particularly appropriate when considering the regulatory history aspects of RMRR. The commenter explained that when Congress adopted the NSR program in 1977, it adopted the already existing definition of "modification" as contained in the NSPS program. Under the commenter's interpretation, NSPS is not triggered for maintenance activities that do not change the basic design characteristics of a unit in a way that increases maximum emission rate -- unless the activities in question cost more than 50 percent of the replacement value of the unit. The commenter states that the notion of a replacement cost threshold is firmly imbedded in the very NSPS regulation whose definition of "modification" was adopted into the NSR rules. The commenter further stated that the ERP proposal of a 20 percent replacement cost threshold is even more restrictive than the 50 percent threshold of the NSPS rule, therefore they believed that the ERP rule is, therefore, clearly within the EPA's authority.

One commenter (US Chamber of Commerce, @2593) believed that the rule record reflects that the EPA went through extensive efforts to conform to the directives of Congress.

Response:

We agree that there was a basis for the selection of the 20 percent equipment replacement. This support is set out in the administrative record and preamble to the final ERP rule.

Case Law Support

Comment:

Five commenters (The Large Public Power Council, @2563; US Chamber of Commerce, @2593; Edison Electric Institute, @2567; Xcel Energy, @2551; Dairyland Power, @2553) cited the WEPCO case as supporting the EPA's 20 percent cost of replacement threshold.

One commenter (The Large Public Power Council, @2563) specifically stated that in the WEPCO case the Court determined the proposed changes at each of the five coal-fired units did not constitute a "physical change" under the NSR rules. The commenter explained that the Court reached its ruling even though the capital cost percentage for the replacement activities, averaged over the five WEPCO units, amounted to 29 percent of the replacement value.

Response:

We agree with the commenters that the WEPCO case findings support the EPA's 20 percent replacement cost threshold. However, we note that the commenter was incorrect in stating that the Court determined that the projects of issue did not constitute a physical change. To the contrary, the Court found that they did constitute a physical change (see 893 F.2d at 907).

Comment:

One commenter (Duke Energy, @2564) stated that the NSR provisions adopted in 1977 by Congress included the term "modification," which was to have the same meaning and usage as the term has in the NSPS regulations. In United States v. Duke Energy Corp., 278 F.Supp. 2d 619, 2003 U.S. Dist. LEXIS 14957 (M.D.N.C. Aug. 26, 2003), the Court recognized and recited this history. The Court articulated no cost limit and used commonalities in the electric utility industry to determine whether or not projects were considered RMRR. The commenter stated that the opinion in USA v. Duke Energy Corp. clearly supports use of a capacity-based test for RMRR. If such a test is lawful, then EPA's inclusion of a 20 percent cost limit test for the ERP rule, being more restrictive than a capacity-based test, is clearly lawful.

One commenter (Clean Air Implementation Project, @2581) expressed that, as the EPA points out, the Agency should have broad discretion under Chevron to draw lines that it believes reasonable in determining what activities may be excluded as "routine." As indicated above, all identical or functionally equivalent component replacements could properly be excluded from the meaning of changes and, in turn, excluded from NSR applicability. Thus, the EPA's ERP rule, which only excludes a subset of such replacements is a permissible exercise of its discretion.

Response:

The United States has appealed U.S. vs. Duke Energy Corp. For the reasons provided in our briefs before the Court of Appeals, we disagree with the decision in the cited case. We continue to believe that the statute provides us with discretion to interpret "any...change."

4.2.1.2 Petitioners Had Adequate Opportunity/Notice to Comment on the 20 Percent Cost Threshold

Comment:

Five commenters (American Public Power Association, @2630; The Class of '85 Regulatory Response Group, @2568; Dairyland Power, @2553; Iron and Steel Industry Trade Groups, @2544; NEDA/CAP, @2670) disagreed with petitioners' allegations that the EPA did not provide adequate opportunity to comment on the 20 percent cost of equipment replacement threshold.

One commenter (NEDA/CAP, @2670) stated that the EPA's Report to the President set forth in June 2002 the notion that a test derived from the NSPS rules, which included a 50 percent reconstruction test as well as an AAGR test were being considered. In the December 31, 2002 proposed rule, the EPA took comment on both options as well as numbers below 50 percent. Moreover, the Agency not only provided the opportunity to comment on the number, but requested comment on several definitional safeguards, which were ultimately adopted, to ensure that if the exclusion was applied it could only be applied to a functionally equivalent unit and not to a fundamentally altered "new" process unit.

One commenter (The Class of '85 Regulatory Response Group, @2568) stated that the EPA solicited comments on a range of cost thresholds, up to 50 percent of the replacement cost of a process unit. Although the commenter believed that the petitioners may be correct that the EPA' s arguments in the proposed rule did not specifically identify a 20 percent cost threshold, the EPA provided an analysis in the proposed rule as to why a cost threshold of up to 50 percent might be appropriate. Therefore, petitioners clearly were put on notice that the EPA was looking at various options ranging up to 50 percent.

One commenter (Dairyland Power, @2553) argued that the EPA provided an analysis in the proposed rule as to why a cost threshold of up to 50 percent might be appropriate. The commenter explained that the petitioners clearly were put on notice that the EPA was looking at various options ranging up to 50 percent, and that the EPA's arguments in the final rule to support the 20 percent threshold also serves as an analysis of why the EPA rejected a 50 percent threshold.

One commenter (Iron and Steel Industry Trade Groups, @2544) stated that petitioners alleged that the EPA did not provide adequate opportunity to comment on the legal basis due to the difference in the length of the legal analysis discussed in the final rule compared to the proposed rule. The commenter also contended that the petitioners also argued that the EPA's arguments supporting the 20 percent threshold did not appear in the proposed rule; thus, they

were not able to comment on these arguments. The commenter argued that, when reviewing claims of procedural error under both the CAA and the Administrative Procedure Act, the courts have emphasized that it is appropriate for agencies to learn from comments and other information received or developed after the proposed rule and to modify or update its position based on evidence it relies on without further notice and comment as long as the final rule is a logical outgrowth of the proposal. Courts typically allow an agency to revise proposed regulations or supplement data or information in the docket so long as such revisions or information is a logical outgrowth of the proposal.

The commenter stated that the EPA provided a detailed legal analysis in the preamble to the final ERP rule in response to the comments received from petitioners and others. Similarly, the commenter asserted the EPA included additional arguments in the final rule preamble that explained why it ultimately chose the 20 percent threshold. The commenter stated that the EPA solicited comment on a range of equipment replacement cost thresholds and received comment supporting a number of different cost thresholds, from less than 1 percent up to 50 percent. The 20 percent cost threshold selected in the final rule is well within this range. Therefore, the additional length of the legal analysis in the final rule and the additional information offered by the EPA to support its percent threshold would be considered a "logical outgrowth" of the proposed rule to which the Petitioners had an adequate opportunity to comment.

Response:

We agree that we solicited comments on a range of percent thresholds and on safeguards for a threshold-based equipment replacement test. We agree that our final rule was a logical outgrowth of the proposal.

4.2.2 Supports 50 Percent Threshold

Comment:

Four commenters (Virginia Independent Power Producers, Inc, @2560; El Paso Corp. Pipeline Group, @2561; Clean Air Implementation Project, @2581; Pinnacle West Capital Corporation, @2584) believed that the equipment replacement cost threshold should be 50 percent.

One commenter (Virginia Independent Power Producers, Inc, @2560) believed that adding a cost factor to the ERP makes the regulation more complex than is necessary. If one is to be included, the commenter believed it should be consistent with the 50 percent threshold set forth in the NSPS regulations. As part of the justification for a lower cost threshold in the ERP than in the NSPS, the EPA incorrectly stated that the ERP "identifies a threshold below which there is no need for further inquiry into whether an activity qualifies for the ERP and above which there is a need for a case-by-case determination." The revised ERP does not consider an activity RMRR unless other criteria are met in addition to the 20 percent threshold. Therefore, if the cost of an activity is found to be less than the 20 percent cost threshold, further inquiry is

required to determine if the activity also meets the additional criteria before it can be considered RMRR. Since the ERP includes these additional safeguards a cost threshold is not necessary to make it as restrictive as the NSPS definition of modification.

One commenter (El Paso Corp. Pipeline Group, @2561) stated that the threshold should be 50 percent and is well supported in the previous rulemaking. While a 20 percent threshold would cover a majority of their RMRR activities, it should be noted that certain replacement projects that are non-emitting and certain routine events may exceed the 20 percent threshold. Therefore, attempts to lower the 20 percent threshold will severely affect regular RMRR activities at compressor stations and potentially could disrupt the reliability of gas distribution in the country.

One commenter (El Paso Corp. Pipeline Group, @2561) provided extensive cost data for 63 RMRR projects at its facilities. The cost data included project costs replacement value and percentage of replacement value represented by the project costs. The projects were divided into 13 categories based on the type of work performed. Based on the commenter's data, 3 of the 13 categories had projects that exceeded the 20 percent ERP threshold. The commenter provided similar data in their comments submitted in May 2003 which showed an additional four categories that had projects that exceeded the 20 percent threshold. The commenter stated that all of these project categories are fundamental to maintaining the proper operation of their compressor station operating capabilities, as required by the FERC Certificates of Public Convenience and Necessity that govern pipeline operations. The projects do not increase the emissions from process units, and are necessary to maintain these assets in a safe, reliable and efficient operating mode. Therefore, the commenter strongly continues to advocate the ERP percentage threshold of 50 percent. Although the 20 percent threshold represents a significant fraction of the replacement cost, the commenter argued that many common RMRR activities that are essential to safe and reliable operations exceed the 20 percent levels.

This commenter and one other commenter (Clean Air Implementation Project, @2581) also urged the EPA to adopt the NSPS cost threshold for "reconstructions" as the test for whether component replacement will come within the scope of the ERP. Under 40 CFR 60.15, a project is deemed not to constitute "reconstruction" if its cost does not exceed 50 percent of the fixed capital cost that would be required to construct a comparable entirely new unit. Also, under certain NSPS, the EPA has provided that certain types of costs should be excluded in determining whether the 50 percent threshold will be exceeded in order not to have projects that are routinely undertaken be treated as reconstructions.

One commenter (Pinnacle West Capital Corporation, @2584) supported the 20 percent threshold in the final rule, but believed that even a 50 percent cost threshold comports with the CAA. Indeed, the EPA uses a 50 percent cost threshold for NSPS applicability purposes. This same threshold is entirely appropriate for NSR applicability purposes.

Response:

For our response to these comments, we refer the reader to Section 4.1.4 of this technical support document.

4.2.3 Supports a Different Threshold Value

Comment:

One commenter (The Class of '85 Regulatory Response Group, @2568) stated that, based on the public comments received on this issue, the replacement cost analyses the EPA conducted of six industries and the analysis of the costs involved in WEPCO, the EPA clearly has provided an adequate basis for adoption of a 20 percent cost threshold. Nonetheless, although the commenter agreed with the Agency that the 20 percent cost threshold is legally supportable, the commenter did not believe this is the appropriate threshold for the electric generating industry. Based on an evaluation of some of the replacement projects that electric generating units routinely undertake, including turbine blades, sections of waterwall tubes, reheaters, superheaters, and economizers, the commenter determined that a cost threshold of five percent would allow electric generators to continue to maintain their plants for safe, efficient, and reliable operation.

The commenter also believed a five percent cost threshold is a more legally defensible standard than the 20 percent cost threshold. In evaluating the projects at issue in the WEPCO case, the EPA originally had determined that WEPCO's renovation costs would "represent approximately 15 percent of replacements (sic) costs." Memorandum from Don R. Clay, Acting Assistant Administrator for Air and Radiation, to David A. Kee, Director, Air and Radiation Division, Region V, at 6 (September 9, 1988) (the "Clay Memorandum"). The Agency's analysis in the final ERP rule, scaled up to 1991 dollars, found that the WEPCO projects would be 29 percent of the replacement cost or, alternatively, using the 7th Circuit's cost figures, 22 percent of the replacement cost of an electric generating unit. Although the commenter believed the EPA was justified in using 1991 dollars since it is within the timeframe of the 7th Circuit' s decision, the commenter was concerned that the Clay Memorandum provides precedent for establishing a level at something less than a 15 percent cost threshold as an upper bound for whether an activity is routine. Further, the EPA found that the WEPCO work was "far from being a regular, customary, or standard undertaking for the purpose of maintaining the plant in its present condition." Clay Memorandum at 3-4. This indicates that something substantially lower than a 15 percent cost threshold might be the boundary for determining whether a project is routine maintenance. Therefore, the commenter continued to advocate a five percent cost threshold for the electric generating industry as that clearly falls well below the cost of work at issue in WEPCO regardless of the measurements used, and will allow electric generators to maintain their plants for safe, efficient, and reliable operation.

Response:

We agree with the commenter that, based on "public comments received on this issue, the replacement cost analyses EPA conducted of six industries and the analysis of the costs involved in WEPCO," we clearly provided an adequate basis for adoption of a 20 percent cost threshold. We disagree, however, that a 5 percent cost threshold is more defensible for the electric utility industry. Taking into account all of the data available, including substantial data from many facilities in the electric utility industry, we continue to believe that a 20 percent cost threshold is more appropriate for the electric utility industry, as well as other industry sectors.

4.2.4 Supports an Alternative to an Equipment Replacement Cost Percent Threshold

Comment:

Two commenters (STAPPA/ALAPCO, @2576; NYSDEC, @2521) believed that a better way could be devised to make routine maintenance determinations. The commenter recommended that in lieu of the 20 percent threshold, the EPA should (1) codify criteria for characterizing whether a change is routine, including criteria to safeguard against changes likely to result in an increase in emissions; (2) develop two lists for each major industrial sector, identifying the activities that would and would not be considered routine; (3) retain case-by-case determination by the permitting authority for those activities that are not included on either list; and (4) preserve the ability of state and local air pollution control agencies to impose requirements more stringent than those of the federal government. The commenter believed such an approach would provide greater clarity and certainty without sacrificing the critically important environmental and health benefits of the NSR program.

Response:

Prior to promulgating the ERP, we evaluated developing a list of activities that are considered RMRR as a component of an overall RMRR program. Although it was decided that we could develop a list for industry sectors for which we had ample of information, we were concerned that such a list would need to be updated often. As noted in the preamble to the final ERP rule, we believe that there are too many activities in too many industries to effectively improve major NSR implementation by creating such lists. We also were concerned that such lists would need to be updated often.

As noted in the preamble to the final ERP, nothing in the promulgated ERP would prevent a State or local program from imposing additional requirements necessary to meet Federal, State or local air quality goals.

Comment:

One commenter (Indiana Chamber of Commerce, @2578) pointed out that EPA, in the final rule, reviewed several other options including specific listings of excluded activities, annual allowances for RMRR activities, capacity-based options, and age-based options. These were rejected primarily as difficult to implement and enforce. The commenter supported these conclusions. In addition, the actual-to-actual emissions test promulgated under the NSR Reform Rule is not adequate in and of itself for RMRR activities. The primary function of the exclusion is to provide regulatory certainty in conducting activities that are very time dependent. The exclusion allows sources the ability to know, with certainty, that RMRR can be conducted without the unnecessary delays caused by a time-consuming compilation of emissions data and in many instances submittal and agency approval of such data.

Response:

We agree that the ERP exclusion allows sources to know, with certainty, that RMRR can be conducted without delay in situations where the project meets the four specified criteria, including the 20 percent replacement cost criterion. As the commenter stated and as set out in the final ERP rule preamble (68 FR 61267), we considered other options, in addition to the equipment replacement cost-based option we selected. We concluded that a capacity-based approach would have to be tailored to various types of sources, with capacity-based on input for some and on output for others. As with defining capacity, we believe that defining an age cut-off would also be difficult because the useful life of equipment may vary greatly. We also evaluated listing activities that do not qualify as RMRR, but determined that there were too many activities in too many industries to effectively produce a useful list that would serve to improve major NSR implementation.

Comment:

One commenter (North American Insulation Manufacturers Association, @2582) stated that although the case-by-case approach in the final rule is a flexible approach that considers many factors, it can also require the source operator to conduct a lengthy, cumbersome technical review of the process unit. The commenter added that sometimes the case-by-case approach can become bogged down with difficulties interpreting NSR regulations, and sometimes it results in misguided regulatory enforcement activities. Such reviews require a significant investment of a company's resources. Moreover, they conflict with earlier determinations by EPA and various States that such replacements are properly categorized as RMRR activity. Such component-by-component reviews are time-consuming and costly for both the EPA and industry. Clearly, the EPA lacks the resources to conduct a component-by-component review of each regulated industry's process units. Equally important, such reviews unduly waste both the EPA's and industries' resources and time. Accordingly, the ERP rule provides a simpler, more efficient, and objective means of determining whether NSR requirements are triggered than the multi-factor RMRR approach does.

Response:

By including the 20 percent replacement cost threshold and other criteria for determining whether a modification is subject to the multi-factor RMRR approach, we have reduced the number of "changes" that would need to go through case-by-case review. We disagree with the commenter that such reviews unduly waste both the EPA's and industries' resources. Most RMRR projects will not be subject to the multi-factor approach, allowing resources to be more focused to ensure that the goal to preserve and improve air quality is met.

4.2.5 Supports the Development of RMRR Activities Guidance

Comment:

One commenter (El Paso Corp. Pipeline Group, @2561) stated that the RMRR provisions are the most critical aspects of NGT facilities because virtually all RMRR activities are characterized by the following:

- Recommended by manufacturer to promote operational durability, reliability, and safety;
- Serve to maintain the operation of equipment at specified capacity and performance;
- Avoid untimely delays in availability;
- Do not increase production capacity; and
- Do not affect emissions of any pollutant.

The commenter strongly advocated the ERP to provide clear guidance for the types of activities that need not be evaluated under NSR to avoid costly delays and unnecessary permitting efforts.

Response:

Guidance that would specifically address all industries and activities that would not need to be evaluated under NSR would be difficult to develop. For example, activities in one industry may be classified as RMRR, where as in another, they would not. We simply believe that there are too many activities in too many industries to effectively improve major NSR implementation by creating such guidance.

4.2.6 Future Rulemaking Recommendations

Comment:

One commenter (Interstate National Gas Association of America, @2656) strongly advocated that the EPA consider a future EPA rulemaking to establish a categorical exclusion for equipment component replacements related to unanticipated shutdowns and catastrophic process unit failures. The commenter explained that such events require rapid response to regain FERC mandated capacity and costs often exceed 20 percent of the process unit replacement value. The

commenter requested that the EPA consider relaxing the ERP percentage necessary for such events to avoid unacceptable time delays associated with determinations using the multi-factor approach. This commenter also supported the EPA developing a rule or policy to clarify that physical or operational changes that do not "result in" any increase in emissions cannot be considered "major modifications." They explained that clarifying the "causality" criterion implied in the definition of "major modification" would provide a clear mechanism for exclusion of such activities irrespective of qualification under the ERP.

Response:

We do not believe that it is appropriate at this time to include a categorical exclusion for equipment component replacements related to unanticipated shutdowns or catastrophic process unit failures.

4.2.7 EPA Does Not Have An Adequate Legal Basis

Comment:

Four commenters (NYSDEC, @2521; State of Delaware, @2575; Calpine Corporation, @2588; State of Delaware, @2554) argued that there was no support, record, or legal basis for the EPA's 20 percent replacement cost threshold value.

One commenter (NYSDEC, @2521) stated that the incompleteness of the cost information and the inherent source-specific nature of what constitutes RMRR across industries make it impossible to justify a uniform 20-percent cost threshold for determining whether a physical change should be exempt from permitting. The commenter believed it unlikely that comprehensive and meaningful data exist anywhere to support the promulgation of a bright-line test, because there was never a regulatory reason for permitting agencies to collect data on the replacement values of facilities or process units to compare with the cost of emission controls. Further, the commenter said, the pertinent consideration in determining whether a physical change or change in the method of operation constitutes a modification under the CAA is whether the physical or operational change will have an impact on emissions, rather than whether a facility would undertake equipment replacement if the cost of pollution controls relative to the process unit exceeds a certain level.

One commenter (State of Delaware, @2575) stated that the CAA was not created to reduce source paperwork and permitting activity but was created to insure harmful emissions are controlled "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." The commenter did not believe Congress intended "grandfathered" facilities to continue emitting harmful pollutants (nor substantially increase these emissions) to the detriment of public health and welfare in order to increase source productive capacity and decrease source paperwork.

One commenter (Calpine Corporation, @2588) argued that they did not believe the final rule provided a "bright line test," nor did it meet the Court's requirements as set forth in WEPCO. The commenter stated that the EPA's references to other benchmarks, such as "reconstruction," are irrelevant, and that neither Congress nor the EPA has suggested that a bright line test eliminates the need for case-by-case government oversight and enforcement. The commenter went on to say that the ERP neither eliminates the need for case-by-case oversight needed to insure full compliance with the 20 percent rule, nor provides clarity or certainty of a bright line rule. Indeed, by introducing several new, vague concepts, the commenter believed that the ERP adds far more layers of regulatory complexity than it removes. The commenter did not believe that the EPA's alternative to case-by-case review – simply obliging an owner or operator to retain "records developed and maintained in the ordinary course of business" in support of its exemption claim and to make them available upon government request – is adequate to assure compliance.

One commenter (Calpine Corporation, @2588) believed that the 20 percent rule will not function as a bright line test because it requires subjective interpretation of key terms. The commenter cited the definitions of "replacement value," "basic design parameters,"and "total capital investment"as examples, qualifying that each term introduces a new level of subjective interpretation that will add more complexity to NSR. The commenter provided details on why each of these terms lack clarity.

One commenter (State of Delaware, @2554) did not believe the percentage approach as currently set out is appropriate and it is likely to impede the commenter's efforts to obtain attainment with the NAAQS. The commenter believed that any rule clarifying the scope of the equipment replacement provision needs to be carefully tailored so as to prevent increased emissions or to impede the state's efforts to require future emissions reductions. Should a percentage type of rule be utilized, the commenter believed such an approach must also include an analysis of potential increases in pollutants to ensure the replacement does not cause more than the *de minimis* increases the federal courts have found that EPA has the authority to exempt. Further, the commenter was concerned that the rule is not clear with respect to how often a facility may utilize the rule (i.e., how often may a facility utilize the percent exemption, be it every year so that it could be rebuilt over a short period of years, or whether it could be utilized several times in the same year, so that by bifurcating its projects a polluter may rebuild even more than the allowed percentage of a facility within the same year). The commenter expressed that this is a gray area with huge ramifications, and argued that without clarification, the EPA's primary goal of promoting regulatory certainty may be negated.

Response:

We disagree with the commenters' arguments regarding there being no support, record, or legal basis for the EPA's 20 percent cost threshold value exclusion.

As presented in the preamble to the final rule, and the judicial record for the final rule, we provided a number of EPA studies, industry-supplied information, and legal basis as to why 20

percent is a reasonable equipment replacement value threshold for what constitutes routine repair, replacement, and maintenance across industries, in addition to the other criteria outlined in the rule. The basic criteria, coupled with the 20 percent cost replacement threshold, ensures that no physical change or change in the method of operation that increases permitted emissions can be undertaken without triggering NSR.

In response to the commenter's (State of Delaware, @2575) belief that Congress did not intend for "grandfathered" facilities to continue harmful emissions (nor substantially increase emissions) to the detriment of public health and welfare in order to increase productive capacity and decrease source paperwork, we disagree. Congress has never changed its legislative intent to allow grandfathered facilities to operate indefinitely until they make a physical or operational change that triggers NSR.

Calpine (Calpine Corporation, @2588) is correct to say that even with a bright line test such as the ERP, we will need to make case-specific judgments as to whether the criteria are met when we consider bringing enforcement actions. However, we believe that the brightness of the lines we draw in the ERP derives not only from the specific regulatory definitions but also from where we place the lines.

Our appropriate level of compliance assurance for sources using the ERP is fully explained in the ERP final rule. See 68 FR 61263.

4.2.8 Six Modification Activity Case Studies Do Not Support the 20 Percent Replacement Cost Threshold Exclusion

Comment:

Three commenters (NYSDEC, @2521; New York et al., @2555; Council of Industrial Boiler Owners, @2675) argued that the six modification activity case studies do not support the 20 percent replacement cost threshold.

One commenter (NYSDEC, @2521), referring to a set of Abt Associates industry studies in the docket, noted that the analyses state that emissions from some industry sectors may increase once routine repairs are made. The commenter believed the analyses also indicate that variability among individual facilities within a sector make it difficult to generalize what relationship may exist between the cost of repair and maintenance projects and their emissions impacts. Thus, the commenter said, the Abt studies fail to provide sufficient data to support the ERP rule and the 20 percent cost threshold.

One commenter (New York et al., @2555) pointed out that the EPA relied on six industry analyses performed by Abt Associates that purport to demonstrate that application of a 20 percent threshold to plant modifications in those industries would not result in emission increases. However, these industry analyses do not provide a justification for the 20 percent threshold. As

an initial matter, EPA admits that the analyses are not exhaustive, but constitute just a "useful scoping assessment." Furthermore, setting aside limitations of the analyses, there is no basis for believing the results to be the same for other industries. Indeed, in the utility industry, the EPA's enforcement cases document that most modifications cost less than 20 percent of replacement value, yet result in emission increases. In any event, in at least two of the industries studied – automotive manufacturing and carbon black manufacturing – the EPA's contractor was unable to identify any equipment replacement activities that would not be exempted by a 20 percent cut-off. Accordingly, to the extent the EPA relies on these analyses, the commenter believes that its conclusions are inconsistent with the statutory command that any physical change that increases emissions should trigger the NSR requirements.

One commenter (Council of Industrial Boiler Owners, @2675) stated that the EPA's regulatory analysis of the ERP rule provides an analysis to assess the effect of a 10 percent, 25 percent, and 50 percent test on the behavior of industrial manufacturing sectors on key process equipment. Based on analysis using the Integrated Planning Model (IPM) for the entire power industry, which contributes the majority of emissions from all industrial sectors and which is believed to be representative of the results expected from other industries, the analysis showed that the breadth of the RMRR exclusion promulgated in the EPA's ERP provision "would have little impact on the emissions reductions that will be achieved in the future under the major NSR program."

Response:

We continue to believe that this information on other industrial sectors beyond electric utilities supports our 20 percent bright line test. The case studies (included in Appendix C of our final regulatory impacts analysis) estimate the overall impact of the rule on six different industrial sectors (pulp and paper mills, automobile manufacturing, natural gas transmission, carbon black manufacturing, pharmaceutical manufacturing, and petroleum refining). The case studies find that routine equipment replacement activities generally do not cause emissions increases. Additionally, we believe that the study provides a useful scoping assessment that tends to support the proposition that the 20 percent threshold derived for the utility industry (which is based on robust industry data) should be applied to industry as a whole. These data indicate that most typical replacement activities will fall within the 20 percent threshold. At the same time, the data indicate that some major replacement activities likely will cross the 20 percent threshold and will require evaluation under the multi-factor RMRR test. In short, the study supports our view that it is reasonable to assume that equipment replacement activities in the utility industry are similar enough to replacement practices in other industry that the 20 percent value determined for utilities, is appropriate for industry as a whole.

4.2.9 No Basis for Selecting 20 Percent

Comment:

Four commenters (SCAQMD, @2538; State of Delaware, @2575; Calpine Corporation, @2588; New York et al., @2555) stated that the EPA had no basis for selection a 20 percent replacement cost threshold.

One commenter (SCAQMD, @2538) believed EPA's selection of the 20 percent cost threshold is arbitrary because it bears no relationship to the amount of increase in emissions. The commenter noted that the 20 percent threshold allows companies to make a complete run around NSR by completely rebuilding their facility in a period of 5 years. The commenters allege that the EPA's new interpretation allows sources to avoid NSR at the time when Congress intended it should apply.

One commenter (State of Delaware, @2575) pointed out that the EPA stated that the NSPS rule defines reconstruction as activity costing up to 50 percent of a facility's replacement value, and that a figure less than half of that 50 percent figure is an appropriate ceiling above which to require case-by-case review to determine if an equipment replacement is a modification under NSR. The final rule states there are differences between the NSPS and the ERP rule, and the difference weighs in favor of establishing the equipment replacement threshold at something less than the reconstruction threshold. The EPA believes by using the word "modification," the CAA intended to capture activities on a smaller scale than reconstruction. Apparently they believe a value less than half of the reconstruction threshold is appropriate. The commenter contended that no arguments were presented to show why 20 percent is any more appropriate than 3, 5, 15, or even 45 percent.

The commenter (State of Delaware, @2575) went on to say that the preamble to the final rule states that the WEPCO decision (at 29 percent) is above the proposed 20 percent threshold, but does not serve to justify the selection of 20 percent. The commenter further stated that the EPA also states the 20 percent threshold is supported by "robust " data from the electric utility sector; however, no data are included in the rule preamble. Studies by Abt Associates of six different manufacturing industries are referenced in the preamble, and the most telling statement quoted is that "...studies also find that equipment replacement activities vary widely within these industries. Likewise, the cost of these activities as a percent of the process unit replacement value varies widely." Yet despite these contradictory results, the EPA has concluded that a 20 percent threshold is appropriate. Therefore, the commenter believed selecting a 20 percent cost limit is arbitrary and capricious.

One commenter (Calpine Corporation, @2588) pointed out that the EPA asserted that 20 percent is the "appropriate" level for setting the ERP exemption. While the EPA lists the various financial thresholds it considered in determining its ERP threshold, it appears that the essential reason for selecting the 20 percent level as "appropriate" is that 50 percent, which the EPA regulations define as "reconstruction" is substantially greater.

The commenter (Calpine Corporation, @2588) stated that the EPA also offers that the reasonableness of its 20 percent rule is shown by the fact that 20 percent is "approximately the cost of retrofitting existing [coal-fired] plants with state-of-the-art controls." According to the commenter, this argument is a complete non-sequitur. The effect of the 20 percent equipment replacement exemption is to allow large investments in refurbishing run down units without triggering the NSR obligation to invest in modern pollution control technologies. The cost of pollution controls, were they to be required, has nothing whatever to do with how large a cost loophole, if any, should be available for refurbishing projects. The commenter contends that, the fact that the EPA's choice for defining an NSR exemption happens to be approximately the same cost as the agency's current estimate of pollution control equipment for coal-fired units is simply a coincidence.

The commenter (Calpine Corporation, @2588) argues that the EPA's rationales do not constitute reasoned decisionmaking. What, if any, level of investment should be allowed without undergoing NSR is a question of law and policy that has nothing whatever to do with the agency's definition of "reconstruction" nor with the cost of installing pollution controls on old coal-fired power plants. Reasoned decisionmaking requires careful consideration of whether the 20 percent rule will achieve the objectives of NSR and of national energy policy.

One commenter (New York et al., @2555) pointed out that the EPA referred to a submission of the Utility Air Regulatory Group (UARG) that identified the type of activities that would be exempted from NSR review under a 20 percent threshold. Concluding that "these types of replacement activities are important to maintaining, facilitating, restoring or improving the safety, reliability, availability, or efficiency of process units," the EPA concluded that the type of activities described by UARG should be excluded from NSR. The commenter claims that a fundamental error in the EPA's reasoning is its conclusion that activities that increase availability should be excluded from NSR. To the contrary, availability improvements result in increased emissions. Indeed, the EPA's expert witnesses in its NSR enforcement cases have determined that the increased emissions resulting from availability improvements outweigh any reductions attributable to efficiency improvements. In addition, in its analysis of the UARG submission, the EPA erred in concluding that "larger groupings of these activities – groupings that are not usually seen in the industry – would not qualify for the ERP." Under the terms of the ERP, the 20 percent threshold is applied to each "component," or part thereof, that is replaced. Accordingly, groupings of multiple "components," even if "not usually seen in the industry," will not trigger NSR unless any component replacement, by itself, exceeded the 20 percent threshold.

The commenter (New York et al., @2555) stated that the EPA attempted to justify the 20 percent threshold by stating that 20 percent of replacement value is the approximate cost of retrofitting boilers with emission controls. As the EPA reasons, a source will not be willing to spend more money on emission controls than on the replacement activity. Thus, according to EPA, a 20 percent threshold will not deter replacement activities. The commenter contends that the flaw in the EPA's logic is that a source will undertake a replacement project if the value of the project exceeds the cost of the project, including any required emission controls. Thus, in determining whether a project will be undertaken, the cost of emission controls is not weighed

against the cost of the project. Instead, the cost of emission controls is included in the cost of the project which is weighed against the benefit of the project.

The commenter (New York et al., @2555) believes that the EPA's decision to set a 20 percent threshold was not supported by the Time Warner Entertainment Co. LP v. FCC, 240 F.3d 1126 (D.C. Cir. 2001), which simply recognizes that an agency is entitled to act by rulemaking, setting "bright lines," rather than case-by-case adjudication. However, nothing in that decision allows the EPA to set a "bright line" that is arbitrary and without record support. Indeed, the Court in Time Warner overruled two numerical thresholds set by the Federal Communications Commission because they lacked any factual basis.

Response:

We disagree with these commenters and continue to believe that there is substantial statutory, regulatory history, and record support for our decisions. First, we have a robust and detailed set of information available on maintenance, repair, and replacement activities for the electric utility sector. We used that information to establish the ERP.

Information on other industrial sectors beyond electric utilities further supports our 20 percent criterion. As detailed in previous comment responses, the six industry case studies provide support for our view that the 20 percent cost threshold is applicable to industries outside the electric utility industry, and that this threshold is consistent with the holding in WEPCO.

A final factor that we believe supports our selection of a 20 percent threshold is the cost of installing state-of-the-art controls on existing units. There is obviously no single answer to the question of at what point that cost becomes the deciding factor in an owner's decision whether to replace a piece of equipment and incur that cost, since much will depend on the rate of return on the investment. Nevertheless, we think it is reasonable to assume that if the cost of the controls is greater than the cost of the replaced equipment, it is likely to operate as a substantial deterrent to replacing the equipment at issue. That is likely to be the case with respect to electric utilities if we set the threshold below 20 percent, which represents the approximate cost of retrofitting existing plants with state-of-the-art controls. The equation is similar for industrial boilers. Notably, those sectors represent a substantial fraction of the emissions potentially subject to the NSR program. While the relative costs of air pollution controls in other industries vary more widely than the costs for utility and industrial boilers, we nevertheless believe that the costs and technical issues associated with retrofitting air pollution controls factor significantly into equipment replacement decisions.

The EPA continues to believe that our basis for selection of the 20 percent replacement cost of the process unit is not arbitrary and capricious, and that there is support in both the rulemaking record and preamble for the 20 percent replacement cost threshold. Considering all of this information, together with the additional supporting data provided by commenters in response to the reconsideration issues, we believe our decision to establish the cost threshold at

20 percent is supported and persuades us that we have established the correct cost threshold for the ERP.

4.2.10 WEPCO Case Does Not Support Using a 20 Percent Cost Replacement Threshold

Comment:

Two commenters (Calpine Corporation, @2588; New York et al., @2555) argued that the WEPCO case does not support using a 20 percent cost replacement threshold.

One commenter (Calpine Corporation, @2588) stated that the EPA calculates that WEPCO's investment in the units in question at its Port Washington generating station was 29 percent of replacement (or 22 percent using a different method of calculation). The commenter qualified that in WEPCO, the Court held that the life extension projects would not qualify as "routine maintenance." Indeed, the Court held that "to adopt WEPCO's definition of "physical change" would "open vistas of indefinite immunity from the provisions of NSPS and PSD." The commenter argued that it is not accurate to say that WEPCO is consistent with an NSR trigger of 29 (or 22) percent. WEPCO is equally consistent with a trigger of 1 percent. This is because WEPCO addresses only one circumstance, a major life extension project, that the Court holds does not qualify for a "routine maintenance" exemption to NSR. It does not address the question of what replacement cost would qualify for treatment as "routine maintenance." The commenter also argued that it is incorrect to treat WEPCO as endorsing any particular cost figure as a measure of what is "routine maintenance" because the Court was reviewing a different EPA interpretation of "routine maintenance." The WEPCO case held that the replacement program at the WEPCO Port Washington plant, including replacement of steam drums or air heaters, was not routine maintenance exempt from NSR. The Court's opinion endorsed the traditional EPA approach to interpreting "routine maintenance" which involved a "case-by-case determination by weighing the nature, extent, purpose, frequency and cost of the work, as well as other relevant factors, to arrive at a common-sense finding."

One commenter (New York et al., @2555) stated that there was nothing in the WEPCO decision that implies an intention that physical changes must be of at least the same magnitude as those undertaken by WEPCO to trigger NSR requirements. The commenter argued that although the total cost of the activities at issue in WEPCO may have exceeded 20 percent of each unit's replacement cost, the Court upheld EPA's determination that each of the activities triggered NSR, including the air heater replacements that cost a fraction of the total cost. If the ERP had been applicable, at a minimum those reheater replacements would have been exempt from NSR review. In addition, the EPA compared the total cost of all renovation activities at all process units to the replacement costs of all units to find that the WEPCO replacements totaled 22-29 percent of replacement value. The EPA's analysis would have merit only if it disaggregated its analysis to individual components and individual units, as called for by the ERP. Indeed, it is to be expected that many of the individual projects at issue in WEPCO, taken alone, would have cost less than 20 percent of the replacement value of the particular unit.

Response:

We disagree with the commenters that the WEPCO case does not support our selection of a 20 percent replacement value threshold. As we set out in the final ERP rule preamble (68 FR 61256), and as discussed in more detail in previous comment responses, the 20 percent threshold is beneath the scope of the activities at issue (as not constituting RMRR) in the WEPCO case and not inconsistent with the decision made by the Court in that case. Furthermore, we continue to believe that, under the ERP, the equipment replacements at issue in that case would not automatically qualify as being excluded from major NSR.

4.2.11 Miscellaneous Objections To the Use of a 20 Percent Replacement Cost Threshold

Comment:

One commenter (New Jersey, @2671) believed that if the EPA's replacement value is used along with the 20 percent cost threshold, a 1,000 MW plant would be allowed to incrementally replace components of up to $240 million each without being subject to NSR review (assuming a basis of $1,200/kW). Thus, with 5 projects, a facility can replace an entire 40-year old 1,000 MW power plant without having to install any air pollution controls or undergo air quality impact reviews, regardless of the emission consequences of the replacement.

Response:

An important factor of the ERP is that related activities must be aggregated in the same way as they would have to be aggregated for other NSR applicability purposes. Under our current policy of aggregation, two or more replacement activities that occur at different times are not automatically considered separate activities solely because they happen at different times. In the case of replacing an entire facility, it is not feasible that an owner or operator could successfully argue that multiple projects occurring one after the other are not related to one another and should not be aggregated for applicability purposes. These other rule criteria play an important part in determining what replacements can qualify for the ERP.

Comment:

One commenter (New Jersey, @2671) stated that despite settlements in other NSR violation cases, other companies have been unwilling to settle, or have not followed through on agreements in principle, since the ERP was adopted. The commenter believed that these actions occurred because the type of projects that led to the Consent Decrees fall into the types of activities that may qualify for the equipment replacement exclusion, if applied retroactively. Hence, the commenter argued that significant emission reductions that can be achieved with enforcement of NSR have been slowed with the ERP rule.

Response:

As discussed in the final ERP preamble (68 FR 61263), as recognized by the U.S. Supreme Court, an agency may not promulgate retroactive rules absent express congressional authority. See Bowen v. Georgetown Univ. Hosp., 488 U.S. 204, 208, 102 L. Ed. 2d 493, 109 S. Ct. 468 (1988). The CAA contains no such expressed grant of authority, and we do not intend by our actions today to create retroactive applicability to the ERP. The promulgated ERP applies only to the conduct that occurs after the rule's effective date.

Comment:

One commenter (New Jersey, @2671) pointed out that the EPA stated in the preamble to the final rule that an "additional safeguard is that an excluded replacement activity cannot cause the process unit to exceed any emission limitation or operational limitation (that has the effect of constraining emissions) that applies to the process unit and that is legally enforceable." In other words, the EPA indicated that under the ERP, facilities will be allowed to make equipment replacements as long as the resulting emissions are not larger than what the permit allows. The commenter compared allowable emission levels of approved Title V permits for 20 industrial facilities, power plants, and refineries in New Jersey with actual emissions for the year 2002 and found that the emission levels allowed by the Title V permits are dramatically higher than the actual emission levels. Thus, allowing facilities to modify equipment to emit at the level specified in a permit, as opposed to the level at which they have actually been emitting, means that there will be a real and potentially enormous increase in actual emissions. By allowing modifications to increase actual emissions to allowable levels, the commenter argued that the ERP could result in significant emission increases and could have significant adverse air quality impacts.

Response:

As discussed more thoroughly in the TSD for the final rule and elsewhere in this TSD, we have analyzed the likelihood of an overall "enormous increase in actual emissions" and found it unlikely, in part due to other CAA programs that require overall reductions in emissions. The commenter's assumption that all sources will emit up to current permit levels is impracticable given the nature of the affected facilities and ignores these programs. Also implicit is the assumption there is sufficient demand to make it economical for all sources to simultaneously maximize operation levels. Neither assumption is sound. To the extent that maintaining a unit's actual emissions at levels far below its permit is necessary for the State's attainment strategy, nothing in the ERP prevents the State from doing so pursuant to its SIP.

4.3 Support for the simplified procedure for incorporating a FIP into State plans to accommodate changes to the NSR rules

Comment:

Four commenters (Dominion, @2562; Edison Electric Institute, @2567; Cinergy Corp., @2672; CAA Services Steering Committee, @2522) supported EPA's streamlined updates of State plans through a simple cross-referencing of the relevant Federal provisions required for States with unapproved PSD programs. This new, straightforward format allows for automatic updates of affected state plans whenever new sections are added to the PSD FIP. The automatic update will eliminate paperwork delays and typographical errors associated with future updates to Federal PSD requirements. One commenter (CAA Services Steering Committee, @2522) believed that it will reduce the potential for confusion when the PSD rules are updated.

Response:

We cross-referenced the relevant Federal provisions required for States with unapproved PSD programs to ensure that the relevant Federal provisions were included in updated PSD FIPs in a consistent and efficient manner.