COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT NSR RULES

I. Background

- Goal of NSR Reform is to reduce costs and regulatory burdens without sacrificing environmental benefits embodied in the present approach.
- NSR Reform Subcommittee formed in July 1993 under the auspices of the Clean Air Act Advisory Committee.
- Subcommittee's purpose is to provide independent advice and counsel to EPA on policy and technical issues associated with reforming the NSR rules.
- Proposed changes would:
  - reduce the number and types of activities subject to NSR
  - provide States greater flexibility to implement the NSR program
  - revamp permitting of sources near Class I areas
  - promote innovative technologies and pollution prevention
  - streamline the NSR permitting process

**** April 9, 1996; Proposed NSR Reform Rules ****

Proposed Rule	Current Rule

A. The "Clean Unit" Exclusion

- A simplified applicability test for changes to existing units that already have state-of-the-art controls.
- Changes which do not increase the unit's hourly potential emissions would not be considered a physical or operational change and would not trigger major NSR

- What is a "clean unit"?
  - an emissions unit that has a federally enforceable emission limit comparable to the emission limit that would result from a current review under the BACT/LAER requirements
  - three limits would qualify:
    - BACT or LAER limits set within the last 10 years
    - limits set by a State technology minor new source review program determined by EPA to be equivalent to the federal BACT/LAER programs

- The existing NSR program does not include the "Clean Unit" exclusion.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
B. The "Clean Facility" Exclusion	
Allows States to exclude from major NSR proposed changes to an existing major stationary source that has installed BACT or LAER and has undergone an air quality impact analysis within the last 10 years	• The existing NSR program does not include the "Clean Facility" exclusion.
C. Netting Baseline	
• A more flexible and lenient method for computing "netting baseline" emissions.	
• Based on source's highest level of utilization and not necessarily highest emission rate.	• Based on the source's average rate at which the unit actually emitted the pollutant. This reflects actual operating hours, production rates, and types of materials processed, stored, or combusted during the prescribed time period.

Proposed Rule	Current Rule
● Utilization level (capacity factor) is the highest consecutive 12-month period in the 10 years preceding the proposed change. In nonattainment areas and ozone transport regions, the baseline cannot begin prior to November 11, 1990.	● "Actual emissions" as of a particular date equal the average rate at which the unit actually emitted the pollutant during a 2-year period which precedes the particular date and which is representative of normal source operation. The Administrator may allow the use of a different time period upon determination that is it more representative of normal source operation. For an electric utility steam generating unit, actual emissions are the representative actual annual emissions of the unit for any 2-year period out of the preceding 5 years.
● Source must use the current allowable emission rate (e.g., lbs./MMbtu) taking into consideration Federal or State emissions restrictions (RACT, NESHAP, MACT, BACT, LAER, NSPS, etc.) imposed over the 10 year period.	● The Administrator may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit. Allowable emissions account for applicable Federal standards, SIP emissions limitations, or federally enforceable permit conditions.
● "Netting baseline" is the current allowable emission rate multiplied by the utilization level.	● "Netting baseline" is the actual rate of emissions from the unit averaged over a 2-year period.

D. Pollution Control Projects

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● Proposing general exclusion from major NSR: - Add-on controls - Fuel switches to cleaner fuels - Pollution prevention projects	● There are currently no exclusions for add-on controls or fuel switches. Pollution control projects (not including pollution prevention projects) at electric utilities are exempt. There are currently exemptions for temporary clean coal technology demonstration projects and for permanent clean coal technology demonstration projects that do not increase the potential to emit.
● Implementation safeguards: - Environmentally beneficial test for pollution prevention projects - Permitting authority given the responsibility for decision on the Cause or contribute test/air quality impact assessment	● These safeguards are applied to the electric utility exclusions, but do not include consideration of AQRVs in Class I areas.
E. Plantwide Applicability Limits (PALs)	
● Proposing regulations to allow and facilitate States issuance of voluntary source-specific PALS. ● A permitting authority may choose to adopt an area-wide PAL approach	● Current rules make no provisions for PALs.

**** April 9, 1996; Proposed NSR Reform Rules ****

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● A PAL permit allows the source to make any change provided it does not violate its plantwide emissions limit	

**** April 9, 1996; Proposed NSR Reform Rules ****

Proposed Rule	Current Rule
F. Actual-to-Future-Actual Methodology	
● The WEPCO rule is explicitly limited to utilities and promulgated an actual-to-future-actual methodology for all changes at a utility, except for new units. In the final rule, EPA indicated it would consider adopting this methodology for all source categories in a subsequent rulemaking. ● EPA solicits comment on three alternatives for the future actual methodology: - leaving the scope the same; applicable only to utility units - extending the methodology to all source categories - eliminating the methodology	
G. Proposal of CMA Exhibit B	
● EPA agreed to propose and take final action on a methodology for determining whether a source has undertaken a modification based on the source's potential emissions ● Under this methodology, sources may calculate emissions increases or decreases based on either the existing actual emissions or on potential emissions, measured in terms of hourly emissions	● The current basis for net emissions increase is actual emissions.

Proposed Rule	Current Rule
● Sources could use this potential-to-potential test for both NSR applicability and for calculating offsets, netting credits, and other emission reduction credits. ● A serious drawback of this approach is that it would allow unchecked consumption of increment by old, grandfathered sources to the exclusion of new, more efficient and less polluting sources.	
IV. Best Available Control Technology (BACT)	
A. EPA is proposing to codify core criteria for BACT determinations:	
● All of the available control systems for the source, including the most stringent, must be considered in the determination	● Current rules do not specify these criteria, but current policy calls for their use.
● The selection of a particular control system as BACT must be justified in terms of the statutory criteria and supported by the record, and must explain the basis for the rejection of the other more stringent control candidate system	● Current rules do not specify these criteria, but current policy calls for their use.

Proposed Rule	Current Rule
B. Codifying the Existing "Top-Down" BACT Determination Policy in Federal NSR Regulations	
● EPA requests public comments on alternative methods for determining BACT. ● The proposed Federal regulations would serve a template for State and local agency rules.	
C. Improve Content and Management of RACT/ BACT/LAER Clearinghouse	
● EPA is proposing mandatory submittal of BACT determinations to the RBLC by the permitting authority within 60 days of permit issuance.	● Current rules do not require submittal to the RBLC.

Proposed Rule	Current Rule
● Many of the improvements to the RBLC recommended by the CAAAC have been made; others will occur as resources become available	
D. Streamlining BACT/LAER Determinations	
● BACT/LAER determinations need only consider technologies "demonstrated in practice."	● Current rules do not make detailed requirements with regard to a cutoff date. Current EPA policy calls for consideration of available control technologies for BACT, including emerging technologies, until the time that a final NSR permit is issued.
● "Demonstrated in practice" includes: - all technologies required and reported through existing regulatory programs and those that, while not identified in the regulatory arena, meet specific criteria for determining their availability and appropriateness for consideration in a BACT/LAER analysis	

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
- any technology that has been (1) installed and operating continually for at least 6 months on an emissions unit which has been operating at least at 50 percent of nameplate capacity; and (2) whose performance has been verified with a performance test or performance data while operating at 90 percent of the design specifications.	
● Proposal authorizes the permitting authority to cut off consideration of additional control technologies identified after the permit application has been determined complete unless a commenter meets minimum documentation criteria.	● Cut off in current policy is when final permit is issued.

Proposed Rule	Current Rule
● Minimum documentation criteria - Name and location of the source utilizing the technology - Manufacturer and type of control device - Date technology was installed and operational - Performance requirements - Resulting test or performance data	
E. Complete Application Criteria ***New name for Source Information***	
● EPA is proposing minimum criteria upon which the permitting authority should base its completeness determination: - Thorough BACT or LAER analysis - additional impact analyses - Class I area analyses - PAL applicability - undemonstrated technology waiver provisions - FLM review and coordination - registration on applicable bulletin board - statewide compliance for nonattainment - Documentation of offsets	● Current rules require that sources submit all information necessary to perform any analysis or make required determinations, including a description of the source, a schedule for construction or modification, information necessary to determine BACT, meteorological and topographical data, and air quality and growth impacts.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
F. Proposing reforms to the existing Innovative Control Technology (ICT) waiver	
● New name -- "Undemonstrated Technology or Application" (UT/A) waiver	● Referred to as innovative control technology (ICT) at 51.166(s)
● New definition -- "any system, process, material, or treatment technology that shows substantial likelihood to operate effectively and to achieve either: (a) greater continuous reductions of air pollutant emissions than any demonstrated system, or (b) comparable emission reductions at lower cost, lower energy input, with lesser non-air environmental impacts, or with other advantages that are defined and mutually agreed on a case-specific basis to justify the use of UT/A provisions."	● Current definition--"any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or non-air quality environmental impacts."
● Expanding applicability of UT/A waiver to nonattainment areas.	● ICT waivers are limited to PSD areas.
● UT/A waiver must contain a reference emission control performance objective of the UT/A and the otherwise applicable BACT or LAER standard.	

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● Permitting authority is required to include in the UT/A permit both "marginal" and "gross" failure emission limits. - Contingency measures must be identified for failure modes. - "Gross" failure emission limit is an enforceable emission limit	● ICT must achieve a level of continuous emission reduction equivalent to BACT. There is no distinction between marginal and gross failure.
● Provides permitting authority the flexibility to either permit the UT/A at its "marginal" failure emission level or require the source to install technology capable of achieving the appropriate reference emission limit. ● EPA requests comment on possible methods for creating incentives.	● No marginal failure provisions.
● An UT/A that "grossly" fails is required to either replace or retrofit, on an expeditious schedule, such that the source achieves the applicable BACT or LAER standard within 18 months.	● If the ICT fails to meet the required level of emission reduction, the source has up to 3 years to meet the requirement.
● Duration of UT/A waiver - 2 years from date of start-up or; - 5 years from date of permit issuance.	● Duration of ICT waiver - 4 years from date of start up; or - 7 years from date of permit issuance

**** April 9, 1996; Proposed NSR Reform Rules ****

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● Consistent with the CAA, establishes a limit on the issuance of UT/A waivers to that necessary to demonstrate the performance of a technology or application.	
G. Pollution Prevention (PP)	
● Reaffirms existing Agency policy on pollution prevention (May 28, 1992 memo) which provides guidance on incorporating pollution prevention into the Agency's ongoing programs. ● Revised package retains position that existing regulations and the PCP exclusion provide satisfactory consideration of PP initiatives	● No specific mention of pollution prevention.

Proposed Rule	Current Rule
V. Class I Areas	
A. Pre-Application Coordination with FLMs	
• Permitting authority required to notify the FLM within 30 days of being informed that a proposed source intends to locate within 100 km of a Federal Class I area.	• Same notification of FLMs is currently required under the Federal PSD rules; no requirement exists under part 51 PSD rules..
• Require permitting authorities to provide an opportunity for FLMs to participate in any pre-application meetings with prospective PSD applicants planning to locate within 100 km of a Federal Class I area.	• No opportunity to participate is explicitly provided in current PSD rules.
• FLM must provide pertinent information on AQRVs and methods to analyze potential impacts, where available, to PSD permit applicants upon request.	• FLMs are not required to provide such information.
• EPA is creating an electronic database for the compilation of available Class I information.	• No formal database currently exists.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
B. Completeness Review	
● Permitting authority must send permit application to FLM for each source located within 100 km of Federal Class I area.	● EPA must provide written notice of any permit application for a source which "may affect" a Class I area. Such notice must be given within 30 days of receipt and at least 60 days before public hearing
● FLM may review summary information in EPA database for each proposed source beyond 100 km from a Federal Class I area. - Summary of each PSD permit application must be entered into the database. - FLM has 7 days from date of registration in the database to request permit application.	● No comparable requirement currently exists.
● FLM must file a Notice alleging potential adverse impact. This Notice triggers requirement for a Class I analysis (PSD increments + AQRVs).	● No requirement currently exists for FLM to file a Notice alleging potential adverse impacts. [*Although Notice is prescribed the Act*.]

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● FLM has at least 30 days from receipt of permit application for review prior to issuance of a completeness determination by the permitting authority.	● PSD rules provide no FLM involvement in completeness determination. Under Federal PSD rules, FLM has 30 days from receipt of application to provide EPA with an analysis of adverse impact on visibility.
● The permitting authority must consult with the FLM and try to resolve any potential information deficiencies prior to issuing a completeness determination.	● No comparable consultation requirement currently exists.
C. Permit Evaluation: Adverse Impact Analysis	
● Proposal clarifies that required Class I analysis involves any AQRVs identified by the FLM for which the Notice has been filed.	● PSD rules contain general provision for FLM to demonstrate that source emissions will have an adverse impact on AQRVs. Federal PSD rules have specific procedures for submitting a demonstration concerning **visibility**.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● EPA is proposing general definitions for "**air quality related value**" and "**adverse impact on air quality related values.**" - EPA is affirming that FLMs must have sufficient latitude to address impacts on an area-by-area and on a permit-by-permit basis. - EPA is encouraging FLMs to identify AQRVs on a regional or national basis where appropriate, and to establish general procedures for identifying AQRVs.	● Current PSD rules do not contain comparable definitions. Federal PSD rules contain a definition of **"adverse impact on visibility."**
● FLM has at least 60 days from date completeness determination is made to make the adverse impact demonstration. Permitting authority cannot issue a preliminary determination until FLM has been given this opportunity to submit a demonstration.	● FLM has 30 days from receipt of application to submit *visibility analysis* under Federal PSD rules; no time frame is provided under either set of rules for analysis of AQRVs in general. Part 51 PSD rules provide that FLM should provide demonstration *after* the permitting authority's preliminary determination.
● Proposing significance levels for Class I increments that would be used to determine whether a proposed source contributes to a Class I increment violation.	● No Class I significance levels currently exist. Existing significance levels apply only to NAAQS and Class II increments.

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COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● Permitting authority must consult with the FLM regarding permitting authority's own evaluation of the FLM's adverse impact demonstration	● No comparable requirements exist for consultation with the FLM regarding adverse impact demonstrations.
● Proposed source may obtain emission offsets, a reduction in emissions or some combination of both to mitigate its adverse impacts on a Class I area in order to obtain a PSD permit.	● No specific provisions for mitigation of adverse impacts currently exists.
D. Preliminary Determination: Public Review	
● Permitting authority must be satisfied that the FLM's demonstration shows that an adverse impact on AQRVs will occur. - If permitting authority agrees with the demonstration, must propose that permit be denied. - If permitting authority is not satisfied that an adverse impact will occur, may propose to issue the permit.	● This requirement is consistent with current PSD rules.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● Permitting authority must provide, in the public record, an explanation of the reasons for proposing to reject the FLM's demonstration of adverse impact. Rejection must focus on the predicted impacts, the underlying assumptions concerning adverse impacts, and why the source's impacts are not considered adverse.	● Federal PSD rules contain a provision requiring EPA to provide its reasons for rejecting an adverse impact finding on visibility in the notice of public hearing. Part 51 PSD rules do not contain any comparable provisions.
E. Final Permit	
● Permitting authority must address any comments received from the FLM concerning the permitting authority's preliminary determination.	● No comparable requirement currently exists.
VI. Allowable Activities Prior to Permit Issuance	
● EPA is taking comment on the types of activities that might be allowed to a facility undergoing modification but prior to receipt of the construction permit	● Existing Regs do not allow for any construction activities prior to permit issues

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
VII. Judicial Standing	
● States would be required to provide applicants and public with opportunity for State judicial review of major NSR permit actions under approved NSR SIPs	● Currently available under Federal PSD programs, and considered as a general requirement for SIPs under several sections of the Act.
VIII. Easing Restrictions on Crediting Shutdown Emissions as NSR Offsets In Nonattainment Areas Needing Attainment Demonstrations	
● Alternative #1 - In ozone nonattainment areas emissions from source shutdowns or curtailments that occur after November 15, 1990 are creditable as NSR offsets so long as the State's plan for attainment is current with the milestones and the attainment date has not been missed.	● In nonattainment areas lacking EPA approved attainment demonstrations, emissions from source shutdowns/curtailments are not generally eligible as NSR offsets unless the reduction occurs after the new proposed source or modification has filed a permit application.
● Alternative #2 - In all nonattainment areas emissions reductions from source shutdowns or curtailments are creditable as NSR offsets so long as the reductions occur after the base year of the emissions inventory and the emissions are properly included in the inventory.	

Proposed Rule	Current Rule
IX. PROVISIONS IMPLEMENTING THE 1990 CLEAN AIR ACT AMENDMENTS	
A. Major Source Thresholds for Nonattainment NSR Applicability	
● For ozone nonattainment areas the major source threshold is 100 tpy for marginal and moderate areas, 50 tpy for serious areas, 25 tpy for severe areas, and 10 tpy for extreme areas.	● The major source threshold for all nonattainment areas is 100 tpy.
● For PM-10 nonattainment areas the major source threshold is 100 tpy for moderate areas and 70 tpy for serious areas.	II
● For CO nonattainment areas the major source threshold is 100 tpy, except for serious areas with significant stationary source contribution the major source threshold is 50.	II

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
B. Emissions Offset Ratios	
For ozone nonattainment areas the emissions offset ratios are 1.1 to 1 for marginal areas, 1.15 to 1 for marginal areas, 1.2 to 1 for serious areas, 1.3 to 1 for severe areas, and 1.5 to 1 for extreme areas.	The existing emissions offset ratio is greater than 1:1 for all pollutants.
C. Precursors To Nonattainment Pollutants	
● Proposal clarifies that NOx is presumed a precursor to ozone and that Nox, Sox, and VOC are PM-10 precursors as determined by the Administrator for each nonattainment area.	● The current rules only consider volatile organic compounds as ozone precursors and do not address PM-10 precursors
D. Special Modification Provisions for Serious and Severe Ozone Nonattainment Areas	
● Significance threshold for modifications is greater than 25 tpy for VOC and NOx	Significance threshold is 40 tpy for VOC. NOx is not regulated as an ozone precursor.

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
● If proposed modification increase emissions then netting provisions apply. Modification includes all proposed increases and <u>decreases</u>.	Proposed modification by itself must be 40 tpy or greater to trigger netting. Emissions decreases are not considered.
● Netting includes proposed modification and all creditable increases and <u>decreases</u> over 5 year contemporaneous period.	● Same basic netting method generally applies
● If net increase is >25 tpy then major NSR applies as follows: - For existing source emitting less than 100 tpy nonattainment NSR applies but BACT applies instead of LAER. Nonattainment NSR does not apply to any or all units that obtain internal offsets at 1.3 to 1. - for existing source 100 tpy or greater, nonattainment NSR applies but LAER does not apply to any or all units that obtain internal offsets at 1.3 to 1. Providing internal offsets at 1.3 to 1 satisfies the general offset requirement.	● If net increase is 40 tpy or greater, then nonattainment NSR applies. Other than normal netting there is no special consideration for internal offsets.

**** April 9, 1996; Proposed NSR Reform Rules ****

COMPARISON OF THE NEW SOURCE REVIEW (NSR) REFORM RULEMAKING PACKAGE AND CURRENT RULES (CONTINUED)

Proposed Rule	Current Rule
E. Ozone Depleting Substances Regulated under Title VI of Clean Air Act	
● The prevention of significant deterioration (PSD) permit program applies to major modifications of ozone depleting substances (ODS). For purposes of determining if a modification is subject to PSD the EPA is proposing a significant threshold level of 100 tpy for these ODS.	● Any increase in ODS resulting from a modification at a major source is considered significant for PSD applicability purposes.
● Switches from to lower ozone depleting substances are generally considered as pollution control projects that are exempt from major NSR permitting	● Current PSD rules do not explicitly exempt such changes from PSD.
F. Hazardous Air Pollutants (HAPs) listed in Title III are not Subject to PSD	
● HAPs listed under Title III of the amended Clean Air Act that were regulated under PSD are no longer regulated under PSD. HAPs may still be regulated under PSD as constituents of more general pollutants such as volatile organic compounds or particulate matter.	● HAPs that are regulated under the Clean Air Act are also regulated under PSD