Through all these mechanisms, bubbles can achieve substantial emission reductions and air quality planning benefits, even without special "progress" requirements.

Nowithstanding these independent progressive effects, EPA believes that it may approve bubbles in these nonattainment areas only if they meet the specific progress requirements described above and do not interfere with the affected areas' efforts to develop and implement complete attainment strategies. Such bubbles can help adjust existing inadequate regulations on a source-specific basis, help make progress toward a full approved demonstration, and help improve air quality, without "freezing" inadequate SIP requirements that are currently in place.

Accordingly, EPA has decided to approve "progress" bubbles which are consistent with the attainment needs of these areas, which produce a net air quality benefit, and which may therefore secure faster interim progress toward attainment and more rapid development of complete attainment plans.

III. Additional Policy Changes and Clarifications

Today's notice makes numerous additional changes in response to comments on and following the 1982 policy. The most important of these changes or clarifications are discussed below.

A. *Generic Bubble Rules*

Today's notice recognizes the special position of EPA-approved state generic bubble rules. Such rules may provide clearer approval criteria and may result in more rapid bubble approvals with reduced expenditure of EPA and state resources, by eliminating the need for case-by-case Federal rulemaking on each bubble as an individual SIP revision.

Today's policy affirms that states may continue to use generic rules to approve bubbles within the scope of such rules in all areas of the country, including primary nonattainment areas needing but lacking approved demonstrations of attainment. It also establishes specific procedures to ensure opportunity for public comment on individual generic actions and for regular EPA oversight of state administration of all such rules. Finally, it spells out additional "progress" requirements that new generic rules must satisfy to be approvable for primary nonattainment areas needing but lacking demonstrations of attainment.

State generic bubble rules approved by EPA as SIP revisions have independent force of law and further Congress' intent that "the prevention and control of air pollution at its source [remains] the primary responsibility of States and local governments." Clean Air Act, § 101(a)(3). EPA has approved or proposed to approve 10 such rules for 9 different states, and at least 12 others are being developed. Few approved rules currently apply to primary nonattainment areas which require but lack approved demonstrations. However, today's notice requires that all generic rules meet certain additional procedural requirements in order to assure effective EPA oversight of their administration and to identify any deficiencies in individual approvals or state implementation procedures before substantial numbers of state-approved bubbles may be put at risk. To the extent these requirements require modification of existing generic rules, they may apply to rules affecting any area, not just primary nonattainment areas which need but lack demonstrations.

Today's policy is meant to assure these rules' smooth continued operation, both now and through any future transition periods, without undermining the considerable investment states have already made in generic approaches. At the same time, the policy is designed to assure that actions under generic rules will meet the policy's substantive and procedural objectives.

Basically, *bubbles approved by states under existing EPA-approved generic rules before the effective date of this policy* will not be affected or revisited due to today's changes. Because EPA-approved generic rules possess independent validity and may only be changed upon completion of specific procedures for altering such SIP provisions (see, e.g., Clean Air Act sections 110(a)(2)(H), 110(l)), states may also *continue to approve bubbles in accord with such rules*, unless and until those rules are finally changed in response to an EPA notice requesting and establishing a specific timetable for their modification. However, in order to provide maximum assurance of SIP integrity and minimize any need for future SIP corrections, EPA expects states to assure so far as feasible that generic bubbles they approve are consistent with applicable terms of today's policy as well as their generic rules. *New or pending generic rules* must all meet the terms of today's notice.

All existing generic rules which require modification to conform to this policy must, as requested by EPA, be promptly revised. EPA will review such rules to determine their consistency with today's requirements, and will publish **Federal Register** notices identifying generic rules requiring modification. These notices will identify specific deficiencies and means for correcting them, and set forth a schedule for both submittal and EPA review of revised rules. Where states fail to resolve identified deficiencies in such rules within the prescribed period, EPA may either rescind its previous approval of the rule, or issue a notice of SIP deficiency under section 110(a)(2)(H) of the Act.

1. Substantive "Progress" Requirements

Generic bubble rules applicable to *primary nonattainment areas which need but lack approved demonstrations* must provide that all generic bubbles in these areas:

(a) Use lowest-of-actual-SIP-allowable-or-RACT-allowable emissions baselines, as described above, for all sources involved in the trade;

(b) Grant credit only for those reductions occurring after an application to bank or trade credit (whichever is earlier) has been made;

(c) Incorporate replicable procedures which assure that all trades preapproved by EPA as meeting the rule will also satisfy applicable ambient equivalence tests (see Technical Issues Document, Section II.B.2.); and

(d) Produce an overall emission reduction at least equal to a net 20% reduction in emissions remaining after application of the above baselines, or at least equal (in percentage terms) to the overall emission reduction (in percentage terms) needed to attain in the area (i.e., at least equal to the source-by-source emission reductions that would be required for a full demonstration of attainment, taking into account "uncontrollable" stationary [e.g., area] sources and expected emission reductions from mobile sources), whichever is larger.** This last

** For example, assume air quality analysis indicates the area must decrease its base-year emissions by 45% to attain the relevant NAAQS. Further assume:

	TPY
(a) For the base year:	
Uncontrollable stationary source emissions (e.g., residential combustion sources)	2,500
Controllable stationary source emissions	3,500
Mobile source emissions	4,000
Total	10,000
Target emissions for attainment (10,000×(1.0−0.45))	5,500
(b) For the projected attainment year (before additional controls):	
Uncontrollable stationary source emissions (2,500×1.1)	2,750
Controllable stationary source emissions (3,500×1.2)	4,200
Mobile source emissions	2,500
Total	9,450

determination must be submitted with the rule, and must use the same type and quality of analysis required for an EPA-approvable SIP. In no event may the overall emission reduction required of generic bubbles in such areas be less than 20% of the emissions remaining after application of the baselines specified above; and

(e) provide assurances, in conjunction with the state's submittal of the generic rule to EPA, that the state (i) is making reasonable efforts to develop a complete approvable SIP that will achieve the percent emission reduction from controllable sources described in the previous paragraph and (ii) intends to adhere to the schedule for development of such a SIP (including dates for completion of emissions inventory and subsequent increments of progress), as stated in the letter accompanying the submittal or in previous letters. EPA believes that the numerical determination and progress requirement discussed in the previous paragraph is the functional equivalent of the additional assurances described earlier in this notice (see Section II.B.1.b above) for bubbles needing case-by-case EPA approval, since bubbles meeting this requirement will produce attainment-level reductions. For that reason, EPA does not believe that it must require the state to make those additional assurances when it submits the generic rule. However, to assure that generic approvals continue to complement and do not interfere with attainment planning, EPA will require the state to include all of those assurances in or with its notices of proposed and final approval of each bubble issued under the rule in such a nonattainment area.

Generic rules meeting these requirements will assure that each state-approved bubble produces reductions at least equal to those which would be required under an approved demonstration of attainment. Their availability can also encourage states and sources to take significant further steps towards such demonstrations. Since reductions sufficient for timely attainment are all EPA can require for approval of State Implementation Plans under section 110 and Part D of the Clean Air Act, *Train* v. *NRDC, supra*, further Agency scrutiny of individual bubble reductions is not required.

2. Procedural Requirements

Today's notice includes tightened requirements designed to assure, with minimal burdens on states, that EPA's responsibility to monitor the implementation of all generic rules incorporated in SIPs (see section 110(a)(2)(A)(H)) is more efficiently and effectively carried out. EPA will fulfill this responsibility by (a) examining and commenting on, together with any other public commenter under applicable state law, the information provided for individual trades subject to proposed action under generic rules, (b) conducting reviews of individual trades approved under such rules; and (c) periodically auditing implementation of the rule itself as part of its National Air Audit System investigations of state air pollution control programs, including indepth file audits of actions under such generic rules. These activities will cover state actions of disapproval as well as approval, and will examine whether rules are being interpreted or applied within the scope of their approval by EPA.

To be considered valid by EPA, a trade approved under a generic rule must (1) be one of a class of trades authorized by the rule, (2) be approved by the state after the rule has been approved by EPA, and (3) meet all the provisions of the EPA-approved rule. State approvals which do not meet these requirements are not considered part of the SIP and do not replace prior valid SIP limits, which remain enforceable and may make such trades the subject of remedial action after due notice by EPA to the state and source.

In addition to requiring that generic rules or other state provisions assure meaningful notice *to EPA* by the first day of the public comment period on *proposed* generic actions, and immediately upon *final* generic actions, today's policy also requires that state generic rules or other state provisions provide *the general public* adequate notice and opportunity to comment, including opportunity for judicial review sufficient to make comment effective. Existing state generic rules, statutes or regulations will generally satisfy this requirement. However, some jurisdictions, for example, deny judicial review to commenters who do not possess a direct financial stake in individual permits. Such jurisdictions will have to modify their generic rule, or other provisions, to meet this requirement.

B. Bubbles Involving Hazardous or Toxic Air Pollutants

EPA reaffirms and extends its 1982 determination that bubbles in any area must not increase emissions of hazardous or toxic air pollutants. Bubbles cannot be used to meet or avoid National Emission Standards for Hazardous Air Pollutants (NESHAPs) *that have been finally promulgated* under Section 112 of the Act. Where NESHAPs *have been proposed but not promulgated* for emitting sources which are the subject of a bubble application, the proposed NESHAP will generally serve as the baseline for determining creditable bubble reductions, and the trade must produce reductions at least as great as those which the proposed NESHAP would produce, if promulgated. Moreover, no source emitting a pollutant subject to such a proposed NESHAP may exceed emissions allowed under the proposed NESHAP as a result of the trade. Where a bubble involves a pollutant which is *listed* under Section 112, but no NESHAP has yet been proposed for the relevant source category, or a pollutant for which EPA has issued a Notice-of-Intent-to-List, there must be no net increase in actual emissions of the noticed or listed pollutant.[29] In general,

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Therefore the reductions needed from controllable stationary sources are 9,450 − 5,500 = 3,950 tons/yr.

And the percent emission reduction required from controllable stationary sources to attain is:

$$\frac{(3950)}{(4200)} \times 100 = 94\%$$

Thus the net overall reduction required from each generic bubble would be 94% (i.e., the reductions produced by applicable baselines (e.g., application of a RACT emission rate) plus whatever percent reduction in emissions remaining after this RACT limit is sufficient to yield the 94% total).

States that wish to avoid case-by-case SIP revisions for sources for which RACT has not yet been defined in an approved SIP provision may incorporate "presumptive RACT" values (e.g., 80% reduction for VOC) in their generic rules. Sources would then have the option of accepting these RACT values for generic bubble purposes, or negotiating different RACT values through the case-by-case SIP revision process. However, where a source involved in a trade is one for which EPA has issued a CTG, but the state has not yet adopted the CTG-specified emission rate as RACT and no RACT has yet been specified by the state for that source, the presumptive or negotiated RACT values for the trade must be at least as restrictive as the CTG-specified emission rate for that source.

[29] In some limited circumstances additional pollutants may be treated as listed pollutants. See Technical Issues Document, Section I.B.1.d.

all bubbles involving emissions of pollutants described above must use lower-of-actual-or-NESHAPs-allowable emissions baselines, and must take place within a single plant or contiguous plants.[**]

Commenters who addressed this issue divided into two general groups. One group asserted that hazardous/toxic restrictions should extend beyond pollutants currently regulated, proposed to be regulated, or listed under Section 112. These comments generally maintained that restrictions should also apply to all pollutants the Agency is "actively considering" for listing. A second group asserted that neither volatile organic compound (VOC) nor particulate emissions should be traded unless there is clear evidence that specific substances present in such VOC or particulate emissions are "relatively innocuous."

EPA has determined that for reasons of policy and administrative practicality these suggestions, while laudable in intent, should not be adopted. Bubbles are alternative means of compliance which should generally be treated no differently than other compliance strategies, provided basic SIP requirements of consistency with ambient needs, PSD increments, and interim progress are met. EPA's statutory authority to further restrict trades on the basis of hazardous substances which may be present in a particular criteria pollutant stream (e.g., VOCs) and which may be subject to a listing, notice-of-intent-to-list or proposed NESHAP, but are not as yet regulated under § 112, is limited. Generalized attempts to exercise such authority based on the presence of substances on which the Agency has taken no formal action whatever would be still more tenuous. Moreover, the inherent ambiguity of such terms as "actively considering" or "relatively innocuous" militates against such tests. States remain free to adopt further restrictions consistent with local laws and needs. However, with respect to national requirements EPA has concluded that clear decision points based on actions pursuant to the deliberative process and record evidence underlying section 112 determinations are to be preferred.

Interested parties should be aware, however, that under today's policy the Administrator reserves discretion to consider on a case-by-case basis whether bubble proposals involve pollutants which, while not regulated, listed or otherwise noticed under section 112, are regulated as toxic under other federal health-based statutes, and to require further analysis before approving such proposals.

One commenter expressed concern over the 1982 policy's use of the term "reasonably close" to indicate the distance which may be covered by bubbles involving pollutants listed or proposed to be regulated under section 112. EPA agrees this term is ambiguous, and with the exception of bubbles which affirmatively decrease such pollutants below the lower-of-actual-or-NESHAPs-allowable baseline, has substituted the more protective and certain requirement that such trades occur within a single plant or contiguous plants. In order to assure that such trades do not produce adverse health or environmental effects, today's notice also requires that they rely only on reductions below current actual or section 112 allowable emissions as of the trading application, whichever is lower, in pollutant streams containing a substance which has been noticed, listed, or proposed to be regulated under section 112.

Several of these provisions—notably the proposed NESHAPs baseline and source-specific proposed-NESHAPs emissions cap, the inclusion of pollutants subject to Notices-of-Intent-to-List, and the general limitation to contiguous plants and lower-of-actuals-or-§ 112-allowables baselines—represent substantial tightenings over the 1982 policy.

C. Banking Emission Reduction Credits (ERCs)

EPA-approvable emission reduction banks may allow sources to store ERCs for their own future use or use by others. Today's notice reiterates that states are by no means required to adopt banking procedures, but notes that banks may help states and communities realize important planning and environmental benefits.[**] Banks may encourage firms to create inexpensive extra reductions at earlier, optimal times (e.g., when replacing outworn control equipment or deciding how to meet new requirements) and disclose such information to state agencies. They may help create a central pool of identifiable, readily-available reductions which can ease plant modernizations or expansions, new source siting, or existing-source compliance. Properly-structured banks may reduce incentives for sources to delay, conceal or hoard actual or potential reductions until an immediate use arises. Banks may also produce other, interim environmental benefits, since banked ERCs remain out of the air (although they must be treated for SIP planning purposes as "in the air") until used. In addition, banks can help state agencies manage their permit workloads more efficiently, because portions of new source or existing-source compliance transactions may be pre-permitted or reviewed in advance. Banks may also help states systematically assure that all unused surplus reductions are treated as "in the air" for SIP planning purposes, avoiding potential inconsistencies which might cause those reductions to be lost.

Comments indicated some confusion over whether, in addition to meeting other ERC requirements, reductions must be made federally enforceable to be formally credited for banking. The answer is no. However, in order to qualify as emission reduction credits and be deposited in EPA-approvable banks, emission reductions must be made enforceable *by the state*. Reductions must be made enforceable by the state by their time of deposit in order, e.g., to better ensure the integrity of the state's air quality planning process by preventing sources from banking reductions of emissions which their permits do not preclude them from continuing to emit. This requirement will also prevent undue reliance by parties or potential parties on emission reductions which have not actually occurred.[**] However, because these

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[**] The new exception (bubbles to which surplus reductions in the emissions of pollutants subject to regulation, proposed regulation, listing, or Notice-of-Intent-to-List as hazardous emissions compensate for increases in non-hazardous emissions. (E.g., where a source decreases hazardous emissions below the baseline specified above, in exchange for corresponding increases elsewhere in a non-hazardous VOC.) As long as such a trade would not result in an increase in either actual or allowable emissions of a pollutant subject to the special restrictions discussed above at any source, it would not differ in nature of requirements from a trade involving only non-hazardous emissions.

[**] See e.g., 47 FR 15083-84 (April 7, 1982).

[**] In primary nonattainment areas which need but lack approved demonstrations, emission reductions made prior to application to bank or trade (whichever is earlier) will not be credited for use in bubbles (see Section I.A.1.c.(1) of today's Technical Issues Document). Following publication of today's notice, the "date of application to bank" will be the date the source submits an application to the state to make a reduction state-enforceable through or consistent with use of a formal bank or informal banking mechanism (see section I.A.1.b.(1) of today's Technical Issues Document).

In other areas, although emission reductions cannot qualify as ERCs or be deposited in EPA-approvable banks until they are made enforceable by the state, emission reductions banked through other formal or informal banking mechanisms which do not make reductions state-enforceable by the time of deposit will still be eligible for use in future trades, so long as those reductions are made federally enforceable at time of use and all applicable requirements of the regulatory program under which they will be used are met.

Continued

actions merely create extra reductions in actual or allowable emissions which cannot by themselves produce any adverse effects on air quality, they need not be made *federally* enforceable until used.[**] Where states wish to make banked emission reductions *federally* enforceable at the time they are banked, several mechanisms may be available for doing so without case-by-case SIP revisions. States with EPA-approved PSD, NSR, visibility and preconstruction review programs can issue permits to credit reductions from emission units currently subject to these preconstruction permits.[**] States with EPA-approved generic rules may also be able to use those rules' procedures to make reductions at existing sources federally enforceable. Since only reductions in applicable emission limits are involved at the banking stage, modeling should not be required. Moreover, these reductions should automatically meet the requirement that changes in emission limits under generic rules not jeopardize ambient standards or PSD increments.

Since some trades have special requirements, banks do not guarantee the validity of particular banked ERCs for all potential uses or for all time. For example, because only actual reductions occurring at the same major stationary source are eligible for netting, banked reductions created at other stationary sources cannot be used for netting transactions. However, banked credits resulting from reductions at other stationary sources may be used as offsets or in bubbles, so long as this notice's other requirements for appropriate use of credits are observed and applicable offset requirements are satisfied.

Because of differing regulatory requirements, the amount of credit actually derived from particular emission reductions may also differ from one regulatory program to another. For example, in primary nonattainment areas needing but lacking approved demonstrations, the amount of credit available from a given reduction for bubble purposes may be less than that available from the same reduction for netting or offset purposes, since special progress requirements apply to bubbles in those areas.

Because the use of credits will change (rather than merely reduce) emission levels if approved, such proposals should be carefully evaluated to assure they meet all of today's criteria for appropriate use. For similar reasons proposals to use banked credits will usually require additional approval procedures (e.g., additional modeling for certain TSP or SO_2 trades), whether such proposals are evaluated as case-by-case SIP revisions, under EPA-approved generic rules, or under EPA-approved new source review programs.

One commenter asked how banked ERCs would be treated if a nonattainment area is being redesignated to attainment. Redesignation will have no effect on the banked ERCs, so long as state planning considered those ERCs to be *in the air* (i.e., in the inventory) at the site of their creation. Because local recessions or shifts in industrial patterns can temporarily affect air quality without regard to the adequacy of state emission-control efforts, EPA guidance requires that redesignation not be based solely on monitored air quality. In addition to considering factors such as the state of the particular economy and its effect on emissions, EPA may consider the number, type, and state inventory treatment of banked credits. Such procedures will help assure that reliably banked reductions are not reduced or otherwise adversely affected by shifts in an area's designated attainment status.

Some commenters asserted it is overly cautious to require that *all* banked emissions be considered as "in the air." One commenter asked that state planning be required to include as "in the air" only a *portion* of banked emissions analogous to a "reserve requirement." This comment drew parallels with financial banking to assume that, given withdrawals and deposits, a certain "float" quantity of ERCs would always remain in the bank and out of the air. EPA recognizes that reductions placed in banks may tend to keep the air cleaner through a relatively constant level of deposits. However, EPA cannot allow states to consider less than their full amount of banked deposits as "in the air." To do so could jeopardize air quality planning and attainment.[23]

D. OBERS Projections and Double-Counting

In its August 1983 notice EPA asked for further comment on whether some SIPs' translation of general economic growth projections provided by OBERS (Department of Commerce) directly into projected emissions growth, left "no straightforward way to disaggregate the projections into shutdowns and new plant openings." Whether such SIP demonstrations were fully or only partly approved, the notice continued, such use of OBERS might make it impossible to distinguish which shutdowns were already relied on in the demonstration. Therefore, it might be "difficult or impossible for states whose SIPs rest on OBERS projections to grant credit from shutdowns for use in existing source bubble trades, consistent with the Clean Air Act." 48 FR 39537.

Most industry and several state commenters asserted that where OBERS data were used to project needed SIP reductions, use of shutdown credits in bubbles was not a problem, since OBERS figures substantially overestimate the total amount of emission reduction needed to attain. For example, one industry commenter noted that "emissions growth will not be directly proportional to economic growth because of the installation of new environmentally efficient technologies. Therefore, SIPs which used 'OBERS' projections already have

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Since states may have to revise their regulations or permit procedures in order to implement this new state-enforceability requirement, full implementation will not be expected until one year after publication of today's notice. However, all credits not made enforceable when banked during this interim period, together with all credits deposited prior to today's notice, should be made state-enforceable within eighteen months from the date of this policy.

[**] Cf. 47 FR 15076, 15081 at col. 2.

[**] Some jurisdictions may also use general state preconstruction review programs that have received EPA approval to credit reductions at existing sources if such reductions are covered under the program, since requirements under these programs are federally enforceable.

[**] In order not to defeat banking's purpose of encouraging the earliest possible disclosure and production of potential extra emission reductions, use of banked credits for bubble purposes in *primary nonattainment areas which lack approved demonstrations* will continue to be allowed, provided these credits meet all baseline and other applicable requirements of today's notice for these areas. This generally includes the lowest-of-actual-SIP-allowable-or-RACT-allowable emissions baseline, applied as of the date of written application to the state to bank such reductions through a formal bank or informal banking mechanism for use in future trades. It also includes that 20% net reduction requirement and state assurances specified above, at the time such credits are approved for use in bubbles. Banked credits resulting from *prior shutdown or production curtailments* may be used for bubbles in these areas on the same terms as use of other banked credits, provided their use is subject to stringent qualitative review to assure legal, technical and programmatic consistency with SIP planning goals (e.g., avoidance of "shifting demand"). See today's Policy at n. 24 and Section I.A.1.c(3) of the Technical Issues Document. (Banked credits resulting from certain shutdowns or production curtailments may, however, be subject to special restrictions for offset purposes. See today's Technical Issues Document at n. 14).

The special restrictions discussed above do not apply under today's notice to use of banked credit for bubble purposes in other areas.

an inherent growth potential built into them, and allowing ERCs for shutdowns in these areas will not jeopardize a state's ability to demonstrate attainment." A local agency agreed that "demonstrations . . . based on such emission projections would overestimate attainment because some growth will occur from [wholly] new sources, new sources replacing existing sources, or modified existing sources, [all of] which would be subject to . . . New Source Review rules, rather than the less stringent [SIP] requirements assumed in the emission projections."

Several state commenters also stressed that while use of OBERS projections is not widespread, the underlying question is whether the area's SIP process incorporates conditions sufficient to prevent double-counting of shutdown credits. One local agency recommended that shutdown credits be prohibited where the source involved is within an industrial category projected to go through an economic downturn, asserting that in such cases the SIP implicitly relies on the expected shutdowns. An environmental group went a step further, and urged that all shutdown credits for bubbles in areas using OBERS projections be completely prohibited.

EPA has concluded that the requirements of the 1982 policy are sufficient to prevent double-counting of shutdown credits, and should be retained without further special restrictions. First, use of OBERS or any other projection is relevant only where an area has an approved attainment demonstration. Today's notice generally disallows bubble credit for pre-application reductions (including reductions from shutdowns or curtailments) in primary nonattainment areas which require but lack such demonstrations. Thus today's notice largely moots any issue of double-counting for past shutdowns, in the areas for which this issue has been raised with the greatest concern. Second, use of OBERS projections in areas with approved demonstrations does not appear nearly so common as was assumed in EPA's 1983 request for further comment. Even where such projections were used in approved demonstrations, they generally overestimate the amount of emissions forecast to exist in the year of projected attainment. They therefore tend to assume substantially less overall reductions from source turnover than will actually occur.[38]

Finally, even if such projections did not overestimate emissions, under today's notice the state must show that use in bubbles of any reductions created by shutdowns is consistent with its attainment demonstration and that these reductions were not already assumed in its SIP. For example, the state must show that it did not implicitly or explicitly rely on a "turnover rate" from the difference in emissions between existing sources and better-controlled new sources for part of the reductions required in its SIP from that industrial category. Alternatively, it must show that if a "turnover rate" was assumed, the shutdown credits used in an individual trade result from reductions in excess of that turnover rate. Where a state regulated the sources in a standard industrial classification (SIC) without explicitly relying on turnovers, then bubble credit for a shutdown within that SCI category would not in general be double-counted.[39]

These requirements should fully protect states and sources against adverse environmental or SIP effects.

E. Improved Modeling and de Minimis Requirements

Bubble applicants must show that their proposed trades are at least equivalent in ambient effect to the SIP (or other) emission limits the bubble would replace. For some criteria pollutants (e.g., VOC or NO_x) this test may generally be met by showing equal reductions in emissions.[40] For other pollutants (e.g., SO_2, TSP or CO) it was traditionally met, prior to the 1982 policy, through ambient dispersion modeling.

The 1982 policy made available several alternatives to the use of full-scale dispersion modeling where such modeling was not needed to protect air quality. These alternatives could, in appropriate, carefully-limited circumstances, be used to demonstrate ambient equivalence for bubbles involving particulate matter or other pollutants whose ambient effects were not linearly related to emissions. They included *de minimis* levels and the use of other screening criteria to identify circumstances in which full-scale modeling was unnecessary, either for bubbles processed as SIP revisions or those approved under generic rules.

Today's notice both tightens some of these screening criteria and expands the circumstances in which such criteria can be used.

Today's notice also specifies certain conditions and types of case-by-case SIP-revision bubbles for which EPA Regional Offices may require additional technical support, beyond basic modeling requirements, deemed necessary to protect NAAQS, PSD increments or visibility where allowable values used to calculate baseline emissions are not clearly used or reflected in an approved demonstration, or may not reasonably be assumed consistent with the need to protect PSD increments or visibility. See Technical Issues Document, Section I.A.1.a.

1. De Minimis Levels

Under the 1982 policy, trades in which net baseline emissions did not increase and in which the sum of emission increases, looking only at the increasing sources, totaled less than 100 tons per year (TPY) after applicable control requirements, could be exempted from SIP revisions under an approved generic rule. The rationale for this approach was that EPA regulations implementing the Clean Air Act already allow some exemptions from NSR requirements for new sources which are not defined as "major"—i.e., which do not have potential emissions greater than 100 TPY. See e.g., CAA section 302(j) and 40 CFR 52.21(b)(1) and 51.18(j)(1)(v). Thus trades which merely shift lesser amounts of emissions, and which are

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[38] This is so because OBERS-based SIP projections assume that units of production (and hence emissions) in particular SIC Codes will keep pace with projected trends in earnings and/or employment in those SIC codes, without regard to changing distributions between new and existing sources. See e.g., *1987 OBERS: BEA Regional Projections, Volume 1: Methodology, Concepts and Sorts Data*, p. (vi), U.S. Department of Commerce (July 1985).

[39] Such credits must of course meet all other requirements of today's notice, including application of appropriate discounts and other criteria defining surplus reductions, before they may be used in a bubble trade.

States which expressly relied on OBERS projections may also show that no double-counting occurred by demonstrating that they did not implicitly rely on any turnover credits. This showing should not be difficult to make because OBERS assume that emissions will evenly increase at each plant and production line proportionate to growth in earnings and employment potential for that SIC code. Cf. n. 36 above. This assumption neither anticipates nor relies on the fact that any shutdown will occur.

The one exception to these general principles could occur where a SIP relied on OBERS projections for an SIC category predicted to undergo a *countrywide* future economic downturn, without taking explicit alternative steps to preclude reliance on that downturn. In these circumstances the state would either have to show that a proposed shutdown credit from a source within that SIC category was not double-counted (e.g., by showing that more shutdown reductions than projected for the SIC category had already occurred), or deny credit.

[40] Interested parties should, however, be aware that ambient equivalence considerations which apply to SO_2, TSP and CO, as described below, also apply to NO_x trades involving visibility impacts from elevated plumes. See Section I.B.1.b. of today's Technical Issues document.

accompanied by compensating decreases, should not be subject to more stringent requirements. As the 1982 notice put it, "Such trades will have at most a *de minimis* impact on local air quality because only minor quantities of emissions are involved . . . the Federal resources required to evaluate these trades could best be used to evaluate actions that have a potential impact on air quality." 47 FR at 15085.[39]

One commenter asserted that this 100 TPY limitation was unnecessary, since the trades to which it applied were already required to produce no net increase in emissions. However, four state and environmental commenters urged that *de minimis* levels for such trades be the same as those triggering federally-mandated review of emissions increases in PSD areas. These comments primarily noted that EPA had already defined more relevant "cutoff" levels in its regulations for PSD, for NSR preconstruction permits in nonattainment areas, and in visibility permit regulations, and that emission shifts of 100 TPY from one source to another might still be too large to go unexamined for certain types of emissions and situations.

In order to ensure prosecution of ambient air quality, today's notice adopts more protective *de minimis* levels—derived from those for PSD; NSR permits in nonattainment areas; and the visibility permit regulations—of 100 TPY for CO, 40 TPY for SO_2, 25 TPY for particulate matter, and 0.6 TPY for lead. Because of this action, state ambient evaluation of *de minimis* trades will no longer be required for generic bubble rules to be approvable by EPA.[40] Trades involving sources of substantial size may still be implemented as *de minimis* under today's provisions, as long as the quality of ERCs traded by these sources is below the levels specified above.

2. Modeling Requirements[41]

Numerous comments were received on the 1982 policy's three-level approach to demonstrating ambient equivalence. The vast majority sought added clarification, stating, for example, that the 1982 policy did "not adequately delineate the level of modeling necessary in each instance." Today's notice tightens and clarifies the conditions under which ambient equivalence may be demonstrated with less than full-scale modeling.

a. Level I Criteria. Under the 1982 document no modeling was generally required of SO_2, TSP, or similar trades where applicable net baseline emissions did not increase, sources were located in the same immediate vicinity (generally within 250 meters of each other), and the taller stack was the one which increased its emissions. These conditions were believed sufficient to assure that local ambient concentrations of the relevant criteria pollutants would not increase as a result of the trade.

EPA has added two criteria to those specified in 1982, in order to provide additional assurance that trades approved under Level I will have no adverse ambient effect. First, there must be no complex (e.g., mountainous) terrain within 50 kilometers of the trading sources or within the trade's area of significant impact, whichever is less. (For simplified methods of determining "area of significant impact," see today's Technical Issues Document, Appendix E). Second, stacks with increasing baseline emissions must be sufficiently tall to avoid downwash.

Some industry commenters objected to the 250-meter limitation, advocating use of either trade ratios for sources beyond that distance, or an 800-meter limit extrapolated from unrelated EPA regulations.[42] EPA has retained the 250-meter limit as substantially more consistent with the modeling screen's original intent of simplifying modeling requirements for trades which could not jeopardize ambient equivalence.[43]

b. Level II Criteria. Trades of SO_2, TSP, CO, Pb and NO_x (for visibility purposes) may also be approved through limited Level II modeling of the ambient effects *solely of sources involved in the trade*, where applicable net baseline emissions do not increase and designated ambient significance levels are not exceeded.

Today's notice confirms, clarifies, and in certain cases extends various 1982 improvements made to increase certainty and better assure that such Level II trades result in ambient equivalence. In particular, "significant ambient impact" may no longer be measured solely by changes at the "receptor of maximum predicted impact" before and after the trade. Instead such changes must be measured at every affected receptor for every averaging period relevant to the particular pollutant, throughout the year. Under this approach no Level II trades will be approved without further scrutiny, involving full or limited Level III modeling, if they result in a significant net ambient effect at any modeling point for any such averaging period during a modeled year.

Today's notice also specifies Level II significance levels for all averaging periods consistent with all current national ambient air quality standards, not just the 24-hour averaging periods for SO_2 and PM or the 8-hour averaging period for CO.[44] Refined models such as MPTER and ISC must generally be used to measure changes resulting from the trade at each receptor, using the most recent full year of meteorological data.[45]

These modeling requirements assure that bubbles which pass applicable Level II tests and meet all other requirements of today's policy will result in air quality equal to or better

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[39] The 1982 document did, however, note that such "(generic) trades are still subject to ambient tests (at the state level, and) . . . should accordingly be evaluated by the state under the modeling screen . . . or an equivalent approach." 47 FR 15085 at n.7.

[40] This should not be construed to imply that new sources and modifications need not meet all applicable requirements, including those specified under 40 CFR 51.18 or parallel EPA-approved state rules.

[41] The following discussion summarizes both interim improvements made in the 1982 modeling screen (see Technical Issues Document, Appendix C) and EPA's responses to major comments on modeling issues.

[42] See e.g., 47 FR 5984, 5985 (February 8, 1982).

[43] Trade ratios may already be used under general provisions inviting states to design other equivalent approaches which adequately address ambient concerns. See, e.g., 47 FR at 15077 and n.2, 15078. However, to be approved by EPA such ratios would generally have to be defined through area-wide advance modeling of all sources, as well as those likely to trade.

Several comments also objected to the requirement that Level I trades not increase emissions from the source with the lower effective plume height. These comments noted that under various conditions similar stacks could so vary in effective plume height that neither would consistently be "higher" or "lower." One also suggested this limitation might encourage use of tall stacks to cure local exceedances.

Today's notice retains this Level I requirement unchanged. That two sources may be virtually indistinguishable in effective stack height should not delay approval of Level I trades, since the limitation's purpose—preventing potentially significant increases in ground-level ambient concentrations due to shifts of emissions from "higher" to "lower" stacks—will still be satisfied. Moreover, since such trades cannot increase net baseline emissions, this limitation merely ensures they will not create new ambient violations. Because other EPA regulations address the use of excessively tall stacks to cure existing ambient violations, no further restriction in this Level I requirement appears required.

[44] For further discussion of these significance levels and the increased assurance of environmental equivalence they provide in conjunction with today's more sophisticated Level II modeling approach, see Fleckenstein, "Modeling Criteria: The Key to Major Reforms for Emissions Trades," APCA Paper 84-65.2 (San Francisco, California, June 28, 1984).

[45] Under some limited conditions, conservative screening models may be substituted for these refined models, and in these cases a full year of meteorological data may not be necessary. See Technical Issues Document, Section I.B.1.a.(3).

than that produced by pre-trade emission limits, and may be approved. Because refined models have now been approved by EPA and their parameters may be specified with greater certainty and confidence, these requirements also provide a firmer basis for approving state generic rules incorporating Level II.**

c. *Level III Criteria.* Trades which are not *de minimis* and do not satisfy Level I or Level II above must generally be evaluated by full-scale ambient dispersion modeling. Two air pollution control agencies recommended fixed trading ratios in lieu of such modeling, asserting this would reduce cost and uncertainty while continuing to meet the goals of the Clean Air Act. EPA recognizes the legitimacy of these concerns but has concluded that trades which do not satisfy Level I or II raise the kinds of air quality issues which appropriately require full-scale modeling, unless such trading ratios have been justified by similar area-wide modeling conducted in advance of the trade.

Today's notice does, however, modify Level III to provide states and sources more flexibility in this regard. Where a trade meets all other criteria of Level II, but Level II modeling has shown significant potential increases at particular receptors, modeling analyses under Level III may under appropriate circumstances be limited to a receptor area smaller than the trade's entire area of impact, so long as it includes emissions from all sources which contribute to ambient concentrations in that limited geographic area. Because of the unique nature of each situation, the appropriate limited geographic area must be determined in accord with EPA guidelines on modeling and case-by-case evaluation. This "limited Level III" approach may conserve significant resources, while allowing states and sources to focus on specific geographic areas of concern.**

F. Enforcement Issues

Several commenters noted that while sources should, as provided in the 1982 policy, be allowed to use bubbles to come into compliance, bubble applications might also be used to delay compliance or enforcement without compensating environmental benefits. Some of these commenters alluded to language in the 1982 notice which, while not authorizing or intended to authorize such results, could have been interpreted to allow them. Such unacceptable delay might, for example, arise where a source facing an imminent compliance deadline suddenly advances a bubble application and asserts that more time is needed to develop and evaluate that application before compliance with original SIP limits should be required.

Both bubbles and generic rules can be important means of allowing environmentally-sound compliance. Generic rules may be more expeditious than case-by-case SIP revision bubbles. They may also preserve the very opportunity to bubble when the time needed to process a case-by-case SIP revision might extend beyond the source's original SIP compliance date. At the same time, bubble applications should not become a shield against enforcement actions for sources which have failed to take necessary steps to meet required control obligations on time. Bubbles are simply alternative means of complying at less cost. They should be treated neither more nor less stringently than other, more traditional methods of compliance. Bubbles offer innovative ways to meet emission reduction obligations. They should not become devices to avoid such obligations.

Today's notice substantially clarifies and tightens the 1982 policy to better implement these principles. Among other steps, compliance extensions will no longer be granted under generic rules in any nonattainment area, and may be granted generically in attainment areas only where EPA has approved the time-extension portion of the rule as consistent with relevant Clean Air Act requirements, including expeditious attainment and maintenance of ambient standards. Cf. 47 FR at 15078 col. 2. This will generally mean that requests for time extensions as part of bubble applications must be separately reviewed as individual SIP revisions, subject to criteria EPA normally applies to such requests.

Today's notice also re-emphasizes that as a matter of law and sound policy, sources seeking bubbles remain subject to enforcement of existing (pre-trade) SIP limits until the bubble is finally approved. Sources which possess approved bubbles with future effective dates remain subject to similar enforcement of pre-trade limits until either those limits or the new ones are met, and may wish to take steps identified in the notice, including accelerated compliance with bubble limits, to minimize that possibility. See Technical Issues Document, section 1.B.2.a.

Under today's notice, EPA will not specifically select such sources for enforcement action. Nor will EPA withhold or defer enforcement simply because a source is seeking alternative emission limits through a bubble. In exercising its inherent enforcement discretion, EPA will apply the same considerations to noncompliant sources which seek to comply through bubbles as to those which do not.**

Emissions Trading Policy Statement

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** Interested parties should, however, be aware that because of applicability concerns related to application of any approach requiring use of case-specific ambient dispersion modeling, such Level II generic rules may be more difficult to draft and implement than rules incorporating only the Netting and Level I approaches for SO_2, TSP, CO or Pb. During and after issuance of the 1982 bubble policy, EPA staff drafted and informally circulated, at the request of state and local air agency directors, model generic rules which provided more detail to help interested states acceptably address these concerns. The Agency plans to update and recirculate these model rules as quickly as possible after publication of today's notice. EPA encourages further working to develop generic rules to use these new models and work closely with relevant Regional staff, so that potential problems may be promptly identified and resolved.

** Today's notice also requires bubble trades in certain primary nonattainment areas meeting but lacking approved demonstrations to produce a "net air quality benefit," which shall consist at minimum of a 20% reduction in emissions remaining after application of the lower-of-actual SIP-allowable-RACT-allowable emissions baselines to all sources involved in the bubble. See, e.g., Section II. B above. This requirement does not extend any modeling difficulties than or in addition to the modeling approaches discussed above. It is merely intended to ensure that where appropriate levels of modeling indicate that prescribed baseline values are not sufficient to produce ambient attainment, additional reductions which assure such equivalence, prior to the 20% net discount to baseline emissions, will be required.

** States and sources should, however, be aware that under current EPA guidance, such discretion is most likely to be exercised where a SIP-revision bubble has been formally proposed for approval at the state level and EPA staff have concluded that it appears approvable under current EPA policy. In these circumstances initiation of action to enforce pre-trade limits that would soon be replaced by a valid bubble revision/guarantee would likely consume limited EPA enforcement resources to little environmental end.

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EMISSIONS TRADING POLICY STATEMENT

I. Introduction: Basic Elements of Emissions Trading

This statement details EPA policy on emissions trading. It sets out conditions EPA considers necessary for emissions trades to satisfy the Clean Air Act. It also clarifies and otherwise makes final the Interim Policy proposed on April 7, 1982 (47 FR 15070). It is accompanied by a Technical Issues Document which elaborates and provides greater detail on principles set forth below. Finally, it addresses new issues, and incorporates certain additional safeguards as a result of past trading experience, to better assure the environmental integrity of future trades.

A. *What is Emissions Trading?*

Emissions trading consists of bubbles, netting, emission offsets, and emission reduction banking. These steps involve creation of surplus emission reductions at certain stacks, vents or similar sources of emissions and use of these emission reductions to meet or redefine pollution control requirements applicable to other emission sources. Such emissions trades can provide more flexibility to meet environmental requirements, and may therefore be used to reduce control costs and encourage faster compliance. Moreover, by developing "generic" trading rules (see Section III below) states[1] may be able to expedite bubble approvals by eliminating the need for case-by-case SIP revisions[2] and by providing more predictable approval criteria.

B. *The Bubble*

EPA's bubble lets *existing* plants (or groups of plants) increase emissions at one or more emission sources in exchange for compensating extra decreases in emissions at other emission sources. Approved bubbles give plant managers the ability to implement less costly ways of meeting air quality requirements. To be approvable, each bubble must produce results which are equivalent to or better than the baseline emission levels in terms of ambient impact and enforceability. Thus, bubbles should jeopardize neither ambient standards nor applicable PSD increments and visibility requirements. Under EPA's bubble, emission reductions from existing sources can not be used to meet technology-based requirements applicable to new or modified stationary sources.

This Policy Statement replaces EPA's original bubble policy (December 11, 1976, 44 FR 71779) and Interim Emissions Trading Policy (47 FR 15070). It tightens general bubble principles as well as requirements for bubbles in primary nonattainment areas which require but lack demonstrations of attainment, and requires bubbles in these areas to produce progress towards attainment, beyond equivalence to stringent emission limits. By specifying EPA's requirements for bubbles in all areas, this Policy Statement should make the development, review and approval of environmentally-sound bubbles more rapid and predictable.

C. *Netting*

Netting may exempt "modifications" of existing major sources from certain preconstruction permit requirements under New Source Review (NSR), so long as there is no net emissions increase within the major source or any such increase falls below significance levels.[3] By "netting out," the modification is not considered "major" and is therefore not subject to associated preconstruction permit requirements for major modifications under 40 CFR 51.18, 51.24, 52.21, 52.24, 52.27, or 52.28. The modification must nevertheless meet applicable new source performance standards (NSPS), national emissions standards for hazardous air pollutants (NESHAPs), preconstruction applicability review requirements under 40 CFR 51.18(a)-(h) and (l), and SIP requirements.

Netting's scope is determined by the definition of "source" for review of major modifications. In general, PSD areas use a single, plantwide definition, allowing actual emission reductions anywhere in a contiguous plant to compensate for potential emission increases at individual emitting units within the plant. Nonattainment areas can choose either this single, plantwide definition or a dual definition, so long as the definition selected does not interfere with attainment and maintenance of NAAQS and is consistent with progress towards attainment. Under the plantwide definition, significant net actual increases at the plant as a whole will trigger new source review. Under the dual definition, significant increases at either the plant as a whole or individual emitting units will trigger new source review.

In addition to these federal definitions for major new sources and modifications, state preconstruction permits for major or minor new sources and modifications may be required under 40 CFR 51.18(a), and some states preclude netting.

D. *Emission Offsets*

In *nonattainment* areas, major new stationary sources and major modifications are subject to a preconstruction permit requirement that they secure sufficient surplus emission reductions to more than "offset" their emissions. This requirement is designed to allow industrial growth in nonattainment areas without interfering with attainment and maintenance of ambient air quality standards. It is currently implemented through SIP regulations adopted by states to meet the requirements of 40 CFR 51.18(j).

In *attainment* areas, some new sources and modifications might not otherwise be able to be constructed because their emissions would result in

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[1] "States" includes any entity properly delegated authority to administer relevant parts of a State Implementation Plan (SIP) under the Clean Air Act.

[2] "Case-by-case SIP revisions" means case-by-case approval by EPA as a SIP revision. This is the traditional mechanism by which bubbles and other SIP changes have been approved by EPA.

[3] See, e.g., 40 CFR 51.18(j)(1)(i), 51.24(b)(36), 52.21(b)(23). See also today's Technical Issues Document, n. 47 and accompanying text.

On November 7, 1986 EPA restructured CFR Part 51 and renumbered many of that Part's sections (51 FR 43651). Because most readers will be more familiar with prior designations, today's notice contains citations based on the organization of Part 51 as it existed before this restructuring. Interested parties may use Appendix F of today's Technical Issues Document to convert today's Part 51 citations to the corresponding new ones.

an exceedance of the applicable PSD increment or ambient air quality standard, would significantly contribute to a violation of an ambient air quality standard in a designated primary nonattainment area, or would significantly contribute to visibility impairment in a Federal Class I area. These sources may use emissions offsets to allow desired growth while protecting that increment, standard, or visibility.

E. Emission Reduction Banking

Firms may store qualified emission reduction credits (ERCs) in EPA-approvable banks for later use in bubble, offset or netting transactions. Depending on the bank's rules, banked ERCs may also be sold or transferred to other firms which seek to meet certain regulatory requirements by use of emissions trades.

EPA's revised Offset Ruling (40 CFR Part 51, Appendix S) allows states to establish banking rules as part of their SIPs. This Policy Statement and accompanying Technical Issues Document detail the necessary components of a complete state banking rule approvable under the Clean Air Act. While many areas also allow banking of emission reductions for various purposes through various formal or informal banking mechanisms, banks which do not meet today's criteria (e.g., by not making banked emission reductions enforceable by the state by the time the reductions are actually banked, or by not assuring that deposits are taken explicitly into account for SIP planning purposes) cannot qualify emission reductions as ERCs, and may offer substantially less protection in the event of future SIP corrections or changes in ambient attainment status.

F. Generic Trading Rules

Generic rules adopted as part of the SIP can authorize states to approve certain types of individual transactions without the need for case-by-case SIP revisions or associated federal review prior to approval. The first state generic bubble rule was approved by EPA April 8, 1981 (46 FR 20551). For the current scope of permissible rules, see Section III below.

G. Effect of This Policy Statement

Emissions trading is largely voluntary: no source is required to trade, and no state is required by EPA to approve a particular trade or to adopt a generic rule. Trading merely offers states and stationary sources alternative ways to meet regulatory requirements. For example, states are free to adopt generic rules or continue to implement trades as individual SIP revisions. They may adopt rules which incorporate all or any combination of the above trading approaches.*

This Policy Statement is accompanied by a Technical Issues Document for use by states and industry in further understanding emissions trading. The Document offers elaboration and important detail on requirements and available options under the Clean Air Act.

This notice reflects the current Clean Air Act and existing EPA regulations. A policy statement cannot legally alter such requirements. However, this notice establishes EPA policy in areas not governed by applicable regulations and sets out general principles which may help states and industry apply those regulations in individual cases. Federal or state rulemaking in response to, e.g., future litigation or changes in ambient standards, attainment status, or SIP validity, may affect states or firms that plan to engage or have engaged in emissions trading activities.

Nothing in today's notice alters EPA new source review requirements or exempts owners or operators of stationary sources from compliance with applicable preconstruction permit regulations in accord with 40 CFR 51.18, 51.24, 51.307, 52.21, 52.24, 52.27, and 52.28. Interested parties should, however, be aware that bubble trades are not subject to preconstruction review or regulations where these trades do not involve construction, reconstruction, or modification of a source.

EPA intends to apply changes made by today's policy prospectively (e.g., not to actions which have already been approved as case-by-case SIP revisions or under generic rules). If, however, ambient violations are discovered in an area where EPA has approved a trade, or if other violations of Clean Air Act requirements are discovered in that area, sources involved in the trade should be aware that they are potentially subject to requirements for additional emission reductions, just as are all other sources in the area.

This policy requires that substantial additional reductions (at least 20%) in emissions remaining beyond applicable baselines be produced by future bubbles in primary nonattainment areas which require but lack approved demonstrations of attainment. However, applications for bubbles in such areas which are still pending at EPA without formal action under the 1982 policy, or which were previously submitted to EPA Regions under the 1982 policy but not accepted for evaluation, will be reexamined and processed for approval if they meet the requirements of the 1982 policy and contribute to progress towards attainment. "Progress towards attainment" means some extra reduction beyond equivalence to a lowest-of-actual-SIP-allowable-or-RACT-allowable emissions baseline, with this baseline applied as of the time applicants originally sought credit. Pending bubbles in attainment areas and nonattainment areas with approved demonstrations of attainment will be processed for approval if they meet the requirements of the 1982 policy and show that ambient standards, PSD increments and visibility will not be jeopardized.

For further discussion on pending bubbles see Section I.A.1.b.(4) of the Technical Issues Document.*

II. Requirements for Creating, Using, or Banking Emission Reduction Credits*

A. Creating Emission Reduction Credits

Emission reduction credits (ERC's) are the common currency of all trading activity. ERCs may be created by reductions from either stationary, area, or mobile sources. To assure that emissions trades do not contravene relevant requirements of the Clean Air Act, only reductions which are *surplus, enforceable, permanent,* and *quantifiable* can qualify as ERCs and be banked or used in an emissions trade.

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* Some requirements underlying emissions trading are not voluntary. For example, construction of a major new source or major modification in a nonattainment area requires sufficient offsetting source reductions to constitute "reasonable progress toward attainment" despite the new emissions (40 CFR 51.18(j); Part 51, Appendix S). However, where the area has an established "growth margin" of extra reductions in a SIP which is currently approved by EPA, the state may provide the offsets from that growth margin rather than require them from the source, as long as it reduces the margin accordingly. See Clean Air Act section 173(1)(A) and (B).

* EPA encourages states or sources which submitted bubbles that were returned without evaluation by EPA to resubmit them under these criteria, provided they can document (a) formal, timely submittal of an application to EPA in accord with normal EPA procedures and (b) that the application was returned without evaluation, rather than rejected for failure to meet the terms of the 1982 policy. Bubble applications which were accepted for evaluation but rejected for failure to meet the 1982 policy will be treated as new applications under today's notice.

* Because this Policy Statement and accompanying Technical Issues Document reflect general Clean Air Act principles, states, individual sources, or commenters on specific rulemaking actions are free to show that a general principle does not apply to particular circumstances or could be satisfied using approaches other than those described. States, sources and commenters have this option under current law, and nothing in this Policy Statement or the Technical Issues Document restricts their opportunity to make such showings.

1. *Surplus.* At minimum, only emission reductions not required by current regulations in the SIP, not already relied on for SIP planning purposes, and not used by the source to meet any other regulatory requirement, can be considered surplus. To determine the quantity of emission reductions that are surplus, the state must first establish an appropriate emissions baseline from which surplus reductions can be calculated. Baseline emissions for any source are the product of three factors—emission rate, capacity utilization, and hours of operation.[7]

In attainment areas, the lower of actual or allowable values must generally be used for each of these baseline factors. However, allowable values for one or more of these factors, when higher than actual values, may be used in calculating the baseline emissions, provided those values are shown to be used or reflected in an approved demonstration.[8] The burden of meeting this test by written evidence rests with the state or applicant which seeks to use an allowable value.

When allowable values for one or more baseline factors are not used or reflected in an approved demonstration, such values may still be used in calculating baseline emissions. However, in such cases applicants must perform appropriate modeling to demonstrate that allowable values which are higher than actual values will not delay or jeopardize attainment and maintenance of ambient standards.[9]

In attainment areas where the PSD baseline has been triggered, credit may be granted consistent with the PSD baseline concentration as specified in 40 CFR 51.24(b)(13) and 52.21(b)(13). This will generally require use of actual values for each of the baseline factors. *However,* states may use allowable values if they show through appropriate modeling [10] that attainment and maintenance of neither the ambient standards nor applicable PSD increments will be jeopardized, and quantify the amount of increment consumed.

In nonattainment areas with approved demonstrations of attainment, the baseline must be consistent with assumptions used to develop the area's demonstration. This generally means that actual values must be used for each baseline factor where actual values were used for such demonstrations, and that higher allowable values for these factors may be used where allowable values were used for such demonstrations.[11] The burden of showing that an allowable value was used or reflected in the approved demonstration rests with the state or applicant which seeks to use an allowable value. In the absence of written evidence to that effect, full Level III modeling would be required to make use of an allowable value in baseline calculations.[12]

In primary nonattainment areas which need but lack approved demonstrations of attainment, states must show that bubbles meet special "progress" requirements designed to produce a net air quality benefit. This must be demonstrated by (1) using the lowest of actual-SIP-allowable-or-RACT-allowable emissions baseline for each source involved in the trade; [13] (2) meeting the ambient equivalence tests outlined in sections II.B.2 of this Policy and I.B.1.b. of the Technical Issues Document; and then (3) producing a substantial net reduction in actual emissions (i.e., a reduction of at least 20% in the emissions remaining after application of the baseline specified above). The state must also provide assurances that the bubble is consistent with ambient progress and future air quality planning goals.[14]

2. Enforceable. To assure that Clean Air Act requirements are met, each transaction which revises any emission limit upward must be approved by the state and be federally enforceable. Means of making emission limits federally enforceable include SIP revisions (see section IV below), EPA-approved generic bubble rules (see Section III below), and new source preconstruction permits issued by states under EPA-approved SIP regulations pursuant to provisions of 40 CFR 51.18, 51.24, or 51.307, as well as construction permits issued by EPA or delegated states under 52.21.[15] Bubbles should be incorporated in an enforceable compliance instrument which requires recordkeeping based on the averaging period over which the bubble is operating, so it may easily be determined over any single averaging period that bubble limits are being met.

3. Permanent. Only permanent reductions in emissions can qualify for credit. Permanence may generally be assured by requiring federally enforceable changes in source permits or applicable state regulations to reflect a reduced level of allowable emissions.

4. Quantifiable. Emission reductions must be quantifiable both in terms of *estimating* the amount of the reduction and *characterizing* that reduction for future use. Quantification may be based on emission factors, stack tests, monitored values, operating rates and averaging times, process or production inputs, modeling, or other reasonable measurement practices. The same method of calculating emissions should generally be used to quantify emission levels both before and after the reduction.

B. Using Emission Reduction Credits

ERCs may be used by sources in bubble, offset or netting transactions. The general principles below will assure

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[7] For further discussion of these factors as they relate to baseline calculations, see Appendix B of the Technical Issues Document.

[8] This statement does not apply to netting, where "contemporaneous" actual emissions are always the baseline. See, e.g., 40 CFR 51.24(b)(3).

Bubbles in areas with demonstrations based only on qualitative judgments (e.g., the "example region" approach or no technical support) certainly may not rely, without appropriate modeling, on allowable values in calculating baseline emissions. However, bubbles in areas with demonstrations based on rollback or dispersion modeling may use allowable values that are reflected in the demonstration. In certain circumstances an allowable baseline value specified in a preconstruction permit may be deemed equivalent to one used or reflected in an approved demonstration. See Technical Issues Document, n. 7.

For further definition of "actual" and "allowable" see today's Technical Issues Document, Sections I.A.1.a. and Appendix B.

[9] This demonstration would require a Level II modeling analysis, in accord with the modeling screen discussed below, using actual emissions for the pre-bubble case, unless, *for bubbles processed on case-by-case SIP revisions,* the Region determines that additional technical support is needed to protect applicable standards or increments. For discussion of Level II modeling, see Technical Issues Document, sections I.B.1.b.(1). For further discussion of additional technical support which Regions may require in these circumstances, see Technical Issues Document, Section I.A.1.a. For a discussion of parallel modeling requirements for use of such higher allowable values in attainment areas under *generic rules,* see Technical Issues Document, n.31.

[10] See n.8 above.

[11] For netting, "contemporaneous" actual emissions are always the baseline. See, e.g., 40 CFR 51.18(j)(1)(v).

[12] For further discussion of Level III modeling, see Technical Issues Document, section I.B.1.b(4).

[13] For purposes of today's notice, the "lowest-of-actual-SIP-allowable-or-RACT-allowable" emissions baseline means the product of (1) the lowest of the actual emission rate, the SIP or other federally enforceable emission limit, or a RACT emission limit, and (2) the lower of actual or allowable capacity utilization and hours of operation. For further discussion of this baseline, see Appendix B of today's Technical Issues Document.

[14] The specific assurances may be found in the Technical Issues Document at I.A.1.b(3). EPA will not second guess each state assurance, provided they are: (1) A substantial test applied by the state to each bubble, and (2) the state has explained how the proposed bubble is consistent with the area's projected attainment strategy. This authority has not been delegated with EPA. See Clean Air Act section 301(a)(1), 42 U.S.C. 7601(a)(1).

[15] EPA is also considering generic steps which would make state operating permits federally enforceable. Prior to use, *banked* credits need not be made federally enforceable. See Section II.C. below.