mechanism had been established and maintained for financial assurance of closure and of post-closure care.

§ 265.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Regional Administrator by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 265.143(e) and 265.145(e) must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of §§ 265.143, 265.145, or 265.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 265.149 Use of State-required mechanisms.

(a) For a facility located in a State where EPA is administering the requirements of this Subpart but where the State has hazardous waste regulations that include requirements for financial assurance of closure or post-closure care or liability coverage, an owner or operator may use State-required financial mechanisms to meet the requirements of §§ 265.143, 265.145, or 265.147 if the Regional Administrator determines that the State mechanisms are at least equivalent to the financial mechanisms specified in this Subpart. The Regional Administrator will evaluate the equivalency of the mechanisms principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator evidence of the establishment of the mechanism together with a letter requesting that the State-required mechanism be considered acceptable for meeting the requirements of this Subpart. The submission must include the following information: The facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage assured by the mechanism. The Regional Administrator will notify the owner or operator of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of §§ 265.143, 265.145, or 265.147, as applicable.

(b) If a State-required mechanism is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by increasing the funds available through the State-required mechanism or using additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this Subpart.

§ 265.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner's or operator's compliance with the closure, post-closure care, or liability requirements of this Part or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of §§ 265.143, 265.145, or 265.147 if the Regional Administrator determines that the State's assumption of responsibility is at least equivalent to the financial mechanisms specified in this Subpart. The Regional Administrator will evaluate the equivalency of State guarantees principally in terms of (1) certainty of the availability of funds for the required closure or post-closure care activities or liability coverage and (2) the amount of funds that will be made available. The Regional Administrator may also consider other factors as he deems appropriate. The owner or operator must submit to the Regional Administrator a letter from the State describing the nature of the State's assumption of responsibility together with a letter from the owner or operator requesting that the State's assumption of responsibility be considered acceptable for meeting the requirements of this Subpart. The letter from the State must include, or have attached to it, the following information: the facility's EPA Identification Number, name, and address, and the amount of funds for closure or post-closure care or liability coverage that are guaranteed by the State. The Regional Administrator will notify the owner or operator of his determination regarding the acceptability of the State's guarantee in lieu of financial mechanisms specified in this Subpart. The Regional Administrator may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of §§ 265.143, 265.145, or 265.147, as applicable.

(b) If a State's assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this Subpart by use of both the State's assurance *and* additional financial mechanisms as specified in this Subpart. The amount of funds available through the State and Federal mechanisms must at least equal the amount required by this Subpart.

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Part III

Environmental Protection Agency

Emissions Trading Policy Statement; General Principles for Creation, Banking, and Use of Emission Reduction Credits

ENVIRONMENTAL PROTECTION AGENCY

[PRM-FRL-1994-5]

Emissions Trading Policy Statement; General Principles for Creation, Banking, and Use of Emission Reduction Credits

May 12, 1982.

AGENCY: Environmental Protection Agency.

ACTION: Proposed policy statement and accompanying technical issues document.

SUMMARY: It is the policy of EPA to encourage use of emissions trades to achieve more flexible, rapid and efficient attainment of national ambient air quality standards.

This Policy Statement describes emissions trading, sets out general principles EPA will use to evaluate emissions trades under the Clean Air Act, and expands opportunities for states and industry to use these less-costly control approaches. Emissions trading includes several alternatives to traditional regulation: bubbles, netting, and offsets, as well as banking (storage) of emission reduction credits (ERCs) for future use. These alternatives do not alter existing air quality requirements; they simply give states and industry more flexibility to meet these requirements. EPA endorses emissions trading and supports its accelerated use by states and industry to meet the goals of the Clean Air Act more quickly and inexpensively.

This Policy Statement replaces the original bubble policy (44 FR 71779, Dec. 11, 1979) and sets forth minimum legal requirements for creation, storage or use of emission reduction credits in any emissions trade. It also provides criteria for "generic" SIP rules under which states can approve bubble or other trades without case-by-case federal SIP review.

EPA encourages states to continue adopting generic trading rules and approving individual trades. Until EPA takes final action on this proposal, it will evaluate state actions under the principles set forth here and illustrated in the accompanying Technical Issues Document.

EFFECTIVE DATE: This Policy Statement is effective as interim guidance upon publication. The deadline for submitting written comments is July 6, 1982.

ADDRESSES: Comments should be sent in triplicate if possible to: Central Docket Section (A-130), U.S. Environmental Protection Agency, Washington, D.C. 20460, Attn: Doc. No. G-81-2.

DOCKET: EPA has established docket number G-81-2 for this action. This docket is an organized and complete file of all significant information submitted to or otherwise considered by EPA. The docket is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section. A reasonable fee may be charged for copying.

FURTHER INQUIRIES:

Ivan Tether, Regulatory Reform Staff (PM-223), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) 382-2765,

or

Leo Stander, Office of Air Quality Planning and Standards (MD-15), Research Triangle Park, North Carolina 27711, (919) 541-5516.

SUPPLEMENTARY INFORMATION: Under Executive Order 12291, EPA must judge whether this action is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This action is not major because it establishes policies that are voluntary and can substantially reduce costs of complying with the Clean Air Act. Furthermore, it can reduce administrative complexity by reducing the number of trades which must be approved by EPA, can stimulate innovation in pollution control, and can allow state and local pollution control agencies to conserve scarce resources.

This Policy Statement was submitted to the Office of Management and Budget for review. Any comments from OMB to EPA are available for public inspection in Docket G-81-2. Pursuant to 5 U.S.C. 605(b), I hereby certify that this action will not have a significant economic impact on a substantial number of small entities. As a policy designed to allow firms flexibility and to reduce administrative complexity, it will impose no burdens on either small or large entities.

I. Introduction: Components of Emissions Trading

This statement details EPA policy on emissions trading. It presents the minimum conditions EPA considers necessary for emissions trades to satisfy the Clean Air Act. It simplifies past requirements and expands opportunities to use these more efficient alternatives.

A. What Is Emissions Trading?

Emissions trading consists of bubbles, netting, emission offsets, and emission reduction banking. These alternatives involve the creation of surplus reductions at certain emission sources and use of these reductions to meet requirements applicable to other emission sources. Emission trades can provide more flexibility, and may therefore be used to reduce control costs, encourage faster compliance, and free scarce capital for industrial revitalization. Moreover, by developing "generic" trading rules (see section III below) states [1] and industry can be excused from SIP revisions, and attendant delay and uncertainty, for many individual bubbles or other trades.

B. The Bubble Policy and Today's Improvements

EPA's bubble policy lets *existing* plants (or groups of plants) decrease or be excused from pollution controls at one or more emissions sources in exchange for compensating increases in control at other emission sources. Bubbles give plant managers flexibility to develop less costly ways of meeting air quality requirements. Each bubble must be equivalent to the original emission limits in terms of ambient impact and enforceability. Bubbles cannot be used to meet technology-based requirements applicable to new sources.

This Policy Statement replaces the original bubble policy (Dec. 11, 1979; 44 FR 71779) and broadens opportunities for the bubble's use. Major changes include:

- Authorizing generic trading rules for all criteria pollutants;
- Extending use of the bubble to areas which lack approved demonstrations of attainment of the national ambient air quality standards;
- Expanding opportunities for use of bubbles as an alternative means of meeting reasonably available control technology (RACT) requirements;
- Reducing unnecessary requirements for detailed air quality modeling of the ambient impact of each trade;
- Reducing unnecessary constraints on trades involving open dust sources of particulate emissions;
- Allowing VOC and CO sources more time to implement bubbles under administrative compliance schedules, consistent with reasonable further progress and statutory deadlines for attaining ambient standards;
- Allowing sources to use the bubble to come into compliance, instead of having to be on a compliance schedule with original SIP limits to be eligible to bubble; and

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

• Allowing broader use of emission reductions from shutdowns.

These and other changes are explained below and in the accompanying Technical Issues Document.

C. Netting

Netting removes the burden of new source review requirements from plants expanding or modernizing in PSD and nonattainment areas, so long as any increase in plant-wide emissions is insignificant. By "netting out" of review the new facility may be exempted from preconstruction permits and associated requirements, including monitoring and modeling, installation of BACT or LAER control technology, the offset requirement, and applicable bans on new construction. The new facility must still meet emission limits established by new source performance standards (NSPS) under Section 111 of the Clean Air Act, Rules governing netting for sources in attainment (PSD) areas were published on August 7, 1980 (45 FR 52676) and rules for nonattainment areas were expanded on October 14, 1981 (46 FR 50766).

D. Emission Offsets

In nonattainment areas, new major stationary sources and modifications may be required to secure sufficient surplus emission reductions to more than "offset" their increased emissions. This requirement is designed to permit industrial growth in nonattainment areas while improving air quality. It is currently implemented by rules published at 40 CFR 51.18(j) and 51.18 (Appendix S), as amended by 45 FR 52676 (August 7, 1980) and 46 FR 50766 (October 14, 1981).

E. Emission Reduction Banking

Banking lets firms store qualified emission reductions for later use in bubble, netting or offset transactions. Banked emission reduction credits (ERCs) can also be sold to firms seeking alternate ways to meet regulatory requirements more quickly flexibly.

EPA's revised offset ruling (40 CFR 51.18, Appendix S) authorized states to establish banking rules as part of their SIPs. This Policy Statement and the Technical Issues Document are EPA's first detailed articulation of the necessary components of a complete state banking rule under the Clean Air Act.

F. Effect of This Policy Statement

Emissions trading is voluntary. States are free to adopt generic rules or let trades continue to be implemented as individual SIP revisions. They may adopt rules which incorporate all or any combination of these trading approaches.

EPA is issuing this Policy Statement as a proposal because elements of emissions trading, particularly banking, raise issues which have not yet been subject to public comment. EPA urges interest parties to address all relevant issues in their comments.

However, until final action the Agency intends to use the principles in this Statement to evaluate trading activities which become ripe for decision, including state adoption of generic bubble and banking rules. Many states are now implementing such rules and should continue to do so.

This Policy Statement is accompanied by a Technical Issues Document for use by states and industry in further understanding emissions trading. The Document offers more detail on minimum requirements and available options under the Clean Air Act. EPA also invites comment on any aspect of the Technical Issues Document.

This notice reflects the current Clean Air Act and existing regulations. A Policy Statement cannot legally alter such requirements. However, it establishes EPA policy in areas not governed by applicable regulations and sets out general principles which states and industry may use to apply those regulations in individual cases. Pending litigation or future rulemaking may alter the general principles outlined here and reflected in the Technical Issues Document. Future federal or state rulemaking, such as additional RACT requirements or changes in ambient standards, may also affect firms that have engaged in emissions trading activities.

II. Minimum Legal Requirements for Creating, Using, and Banking Emission Reduction Credits [2]

A. Creating Emission Reduction Credits

Emission reduction credits (ERCs) are the common currency of all trading activity. 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 emission reduction credits and be banked or used in an emissions trade.

1. *Surplus:* Only emission reductions not currently required by law can be considered surplus. To define what is surplus, the state must first establish an appropriate emissions baseline against which surplus reductions can be calculated.

In nonattainment areas with approved demonstrations of attainment, the baseline must be consistent with assumptions used to develop the area's SIP. Only reductions not assumed in the area's demonstration of reasonable further progress and attainment can be considered surplus. This generally means that actual emissions must be the baseline where actual emissions were used for such demonstrations, and that allowable emissions may be the baseline where allowable emissions were used for such demonstrations.

In nonattainment areas lacking a demonstration of attainment, states may use a variety of baselines which do not jeopardize attainment by statutory deadlines. In general, states may use as baselines either actual emissions (with source commitment to future reductions if needed for attainment) or emission levels which reflect reasonably available control technology. However, where such areas must attain primary ambient air quality standards by December 1982, baselines reflecting reasonably available control technology for emission sources involved in the trade must be used.

In attainment areas, to be consistent with air quality requirements established in prevention of significant deterioration (PSD) programs under Section 110 and Part C of the Clean Air Act, actual emissions would normally be the baseline. States may use allowable emissions as the baseline, if proper consideration of increment consumption is assured.

2. *Enforceable:* To assure that Clean Air Act requirements are met, each transaction must be approved by the state and be enforceable. Enforceable emission limits may be created through SIP revisions (see Section IV), under generic trading rules (see Section III), through new source construction permits, or through state permits issued under 40 CFR 51.18, among other ways.

3. *Permanent:* Only permanent reductions in emissions can qualify for credit. Permanence can generally be assured by requiring changes in source permits to reflect a reduced level of permissible emissions.

4. *Quantifiable:* Emission reductions must be quantifiable in terms of both *measuring* the amount of the reduction

[2] Because this Policy Statement and accompanying Technical Issues Document reflect general Clean Air Act principles, states and individual sources 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 and sources have this option under current law, and nothing in this Policy Statement or the accompanying Technical Issues Document restricts their opportunity to make such showings.

and *charcterizing* 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 before and after the reduction.

B. Using Emission Reduction Credits

ERCs may be used by sources in bubble, netting, or offset transactions. The general principles below will assure that all uses of ERCs are consistent with ambient attainment and maintenance considerations under the Clean Air Act.

1. *Emissions trades must involve the same criteria pollutant.* An emission reduction may only be traded against an increase in the same criteria pollutant. For example, only reductions of particulates can be substituted for increases of particulates, reductions of VOCs for increases in VOCs.

2. *All uses of ERCs must satisfy applicable ambient tests.* the Clean Air Act requires that all areas throughout the country attain and maintain national ambient air quality standards. The ambient effect of a trade depends on the dispersion characteristics of the pollutant involved. Ambient considerations will generally not affect trades involving VOC or NO_x, whose impacts occur across broad geographic areas. For these pollutants "pound for pound" trades may be treated as equal in ambient effect. However, dispersion characteristics are important for bubble and offset trades of SO_2, TSP, or CO whose ambient impact may vary with where the emission increases and decreases occur. Trades of these pollutants must demonstrate equivalent ambient impact under the three-tiered modeling screen discussed in the Technical Issues Document or under a similar approach.

3. Trades should not increase hazardous pollutants. Except as may be specifically permitted by future national emission standards for hazardous air pollutants (NESHAPs), a source may not use a bubble to meet NESHAPs requirements or increase emissions beyond the levels they prescribe. Where a significant fraction of a criteria pollutant stream has been listed under Section 112 but not yet regulated, the hazardous emissions involved in the trade should either remain equal or should decrease (i.e., be traded down).

4. *Emission trades cannot be used to meet applicable technology-based requirements.* New or expanding sources cannot use ERCs to meet new source performance standards, best available control technology requirements in PSD areas, or lowest achievable emission rate control technology requirements in nonattainment areas.

5. *States may allow bubbles in areas without approved demonstrations of attainment.* States are authorized to approve bubbles in such areas, so long as timely attainment of air quality standards will not be jeopardized. (See Section II.A above and the Technical Issues Document).

6. *Sources may use the bubble to achieve compliance.* States may allow sources to use a bubble to achieve rapid compliance once applicable emission limits and deadlines are established as part of a bubble application. States need not require sources to develop and go forward with detailed plans (including ordering equipment) to meet original emission limits when new limits which will supercede them are pending under a bubble application.

7. *States may extend certain compliance schedules.* States may give sources more time to implement bubbles by granting compliance extensions as part of approvals under generic rules, where (i) the area has received an attainment extension under Section 172(a)(2) of the Clean Air Act (applicable to VOC or CO); and (ii) the total amount of reductions required to satisfy the state's reasonable further progress demonstration will not be reduced for each year in question. States may grant similar compliance extensions for VOC or CO bubbles approved as individual SIP revisions subject to (i) above, provided the extension is consistent with reasonable further progress requirements (See section IV below).

8. *States may approve bubbles involving open dust sources of particulate emissions, based on modeling demonstrations.* This action reduces past restrictions on trades involving open dust sources of particulate emissions. Such trades may be approved based on acceptable modeling and/or monitoring demonstrations, provided sources agree to post-approval monitoring to determine if predicted air quality results have been realized.

C. Banking Emission Reduction Credits

Only emission reductions that are surplus, permanent, enforceable, and quantifiable can be banked. To provide maximum protection for sources and avoid future legal problems, state banking rules should specify the ownership rights established, the types of sources eligible to bank ERCs, and any additional conditions placed on certifying, holding, or using banked ERCs.

As a legal minimum, state banking rules must establish ownership rights which are consistent with Clean Air Act requirements, including the requirement that SIPs provide for attainment and maintenance of ambient air quality standards "as expeditiously as practicable." States have considerable latitude in meeting this requirement, and may guarantee banked ERCs against any ambient-based reduction in quantity, so long as that guarantee does not interfere with reasonable further progress and attainment should ambient standards change or additional emission reductions be required.

In most states banking will be an extension of ongoing permit activities. The state or its designee will accept and evaluate requests to certify an ERC, maintain a publicly available ERC registry or similar instrument describing the quantity and types of banked credits, and track transfers and withdrawals of ERCs.

III. State Generic Trading Rules

Use of emission reduction credits under state generic rules approved by EPA will not require individual SIP revisions. The Technical Issues Document explains acceptable generic rules and procedures which states may adopt to reduce the need for individual SIP revisions.

Emissions trades can be approved without SIP revisions if evaluated under EPA-approved state procedures that assure no trade will interfere with timely attainment and maintenance of ambient standards. State generic rules are approvable only if their procedures are sufficiently replicable in operation to meet this test. By approving the generic rule, EPA approves in advance an array of acceptable emission limits, and no further case-by-case federal approval is required for individual trades developed under the rule.

Any trade under a generic rule will involve emission increases at some sources and emission decreases at others. For trades to be approvable under a generic rule, the sum of these increases and decreases (i.e., applicable net baseline emissions) must be zero or less. States may adopt generic rules which exempt from individual SIP revisions: (1) *de minimis* trades whose sum of the emission increases, looking only at the increasing sources, totals less than 100 tons per year after applicable control requirements; (2) trades involving VOC or NO_x emissions (3) trades between SO_2 sources, between CO sources, or between TSP

sources, provided those sources are located in the same immediate vicinity and emissions do not increase at the source with the lower effective plume height; and (4) other SO_2, CO or TSP trades which do not increase emissions and for which carefully defined use of a screening model predicts no significant increase in ambient concentrations. EPA encourages states to adopt such rules or develop alternative approaches that equally assure attainment and maintenance of ambient standards.

To the extent state procedures for rulemaking or permit changes do not assure reasonable public notice and opportunity for comment on proposed trades, states should incorporate such provisions as part of their generic rules.

IV. Trades Not Covered by Generic Rules

States and sources may continue to use the SIP revision process to implement trades which are not covered by a generic rule. Because the SIP revision process can take account of many more individual variations, trades which could not be accomplished under a generic rule may still be implemented as site-specific SIP revisions.

EPA will take action on generic rules and individual trades submitted as SIP revisions as quickly as possible after a state has adopted a SIP revision and submitted the action to EPA. EPA encouages "parallel processing" of such revisions, with EPA and the state conducting concurrent review so that both agencies can propose and take final action at roughly the same time. EPA will also publish noncontroversial SIP revisions as immediate final actions, converting them to proposals only if requests to submit comments are received within 30 days (see 46 FR 44477; Sept. 4, 1981).

V. Conclusion

This Policy Statement sets out basic principles for individual trades and approvable generic trading rules. EPA encourages states to use these principles as a framework and refer to the accompanying Technical Issues Document for further discussion and examples. States are encouraged to design other rules which satisfy these principles but meet their specific needs.

As a policy statement, this notice does not establish conclusively how EPA will resolve issues in individual cases. EPA will accept public comment on this proposal as well as on specific SIP changes submitted under it, and will review individually each generic rule and those emissions trades submitted as SIP revisions to determine their acceptability under the Clean Air Act. Interested parties will have full opportunity to scrutinize application of these general principles to specific cases, and to seek subsequent judicial review of such cases, when particular generic rules or individual trades are proposed and approved.

This Statement expands opportunities to use emissions trading. If implemented by states it can allow industry to use the bubble and other trading approaches in additional circumstances and geographic areas. The policy will also reduce adversary tensions, allow states to benefit from industrial knowledge, and encourage quicker compliance, while reducing unnecessary federal review. It represents important regulatory reform, for states as well as industry, by encouraging greater flexibility in meeting air quality goals.

Dated: April 2, 1982.

Anne M. Gorsuch,

Administrator.

Emissions Trading: Technical Issues Document

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Emissions Trading: Technical Issues Document

This Document offers more detail on technical issues for firms and pollution control agencies seeking to implement individual emission trades or generic trading rules that meet the principles in EPA's Emissions Trading Policy Statement.[1] It describes both the minimum legal requirements for emissions trades under the Clean Air Act, and a range of legal options which states [2] may consider. States and industry are encouraged to pursue other approaches consistent with those discussed here.

Emissions trading is voluntary. States may implement emissions trades on a case-by-case basis or develop generic trading rules covering one or more classes of transactions. Trades under approved generic rules will be exempt from individual SIP revisions. Such rules can also provide greater certainty by specifying which trades are quickly approvable.

Section I of this Document explains general legal principles governing all emissions trading. Section II explains principles governing state generic rules. Section III discusses special considerations for emission trades implemented as individual SIP revisions.

Because these sections reflect general Clean Air Act principles, states and individual sources remain free to show that a general principle does not apply to particular circumstances or can be satisfied using another approach. States and sources have this option under current law, and nothing in the Policy Statement or this Document restricts their opportunity to make such showings. (See Section III below).

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[1] Emissions trading was formerly known as "controlled trading".

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

I. Components of Emissions Trading

The components of any emissions trade are the *creation* of an emission reduction credit (ERC), its *use* in a trade, and its possible *storage* in a bank.

A. Creating Emission Reduction Credits

States may grant credit only to those emission reductions that are *surplus, enforceable, permanent,* and *quantifiable.* Otherwise use of ERCs might degrade air quality, threaten the viability of the area's SIP, and result in more stringent controls.

1. *All Reductions Must Be Surplus.* Only surplus reductions not currently required by law can be substituted for required reduction as part of an emissions trade without jeopardizing air quality goals.

The first step in qualifying a reduction as "surplus" is to establish a level of baseline emissions. The baseline identifies the level of required emissions beyond which reductions must occur for a source to receive credit. It will generally be determined by whether the area is attainment or nonattainment, and by the way the state developed its SIP.

a. *Use of Actual or Allowable Emissions as the Baseline.* In *attainment areas* the baseline will generally be actual emissions—only reductions below a source's actual level of historical emissions can be considered surplus. Because current regulations specify actual air quality as the basis for determining increment consumption, these rules normally require that actual emissions be used for the area's maintenance strategy. (See 45 FR 52717; Aug. 7, 1980). However, allowable emissions may be used as the baseline if proper consideration is given to increment usage.

In *nonattainment areas* the baseline may be either maximum allowable emissions or actual historical emissions.[3] To determine which baseline is appropriate, the state should examine the assumptions used in developing its demonstration of attainment.

In *nonattainment areas which used allowable emissions as the basis for their attainment strategy,* sources can use their SIP allowable limits as the baseline for creating ERCs. Many states used allowable limits in developing their SO_2 and TSP attainment plans.

Other nonattainment areas used inventories that were either substantially deficient or based on actual emissions, or they relied on measured (and therefore "actual") ambient values as the primary basis for determining SIP emission limits needed to demonstrate attainment. Under current EPA regulations, in these areas some level of actual historical emissions would generally be the baseline. *However,* these areas may approve use of allowable emissions as the baseline on a case-by-case basis, where that use comports with reasonable further progress and the source shows it will neither create a new ambient violation nor prevent the planned removal of an existing violation. (See Section III)

b. *Surplus Reductions in Areas Lacking Approved Demsonstrations.* In several jurisdictions demonstrations of attainment are not yet complete. Some of these jurisdictions are uncertain where to secure sufficient emission reductions; others have not yet adopted enforceable emission limits based on reasonably available control technology (RACT) for specific industrial processes. Additional emission controls on these or other sources generally are needed to reach attainment. The question is how "surplus" should be defined for sources lacking SIP-defined RACT emission limits in these areas. Where RACT is already defined in the SIP, it will of course be the baseline. Where RACT for relevant source categories has not been defined, credit for surplus reductions may be granted in at least two general ways which are consistent with Clean Air Act requirements for reasonable further progress and attainment.

(i) *Use of a RACT Baseline.* If RACT has not been defined in the SIP, the source may agree with the State and EPA to an acceptable RACT limit for the emission sources involved in the trade. A surplus would then consist of any emission reductions in excess of those required to meet RACT. Where sources voluntarily agree to such a RACT level, EPA encourages states not to reexamine the agreed-upon individual emission levels for a period of time consistent with the statutory deadlines for attainment, unless there is no other practical way to satisfy requirements of the Clean Air Act.

A RACT baseline is the only option in areas that will not attain the relevant primary ambient standard by December 1982 and have not received attainment extensions for such standard. Because of the extremely short time period remaining for attainment and the practical difficulty of securing further reductions prior to the December 1982 deadline, this limitation is necessary to assure that trades in these areas comport with the statutory deadline and the mandate for RACT "as expeditiously as practicable."

(ii) *Use of Actual Emissions Baseline.* Areas that will not attain the primary ozone or CO ambient standard by December 1982, but have received attainment extensions until 1987, as well as areas with plans that will attain the primary (but not the secondary) TSP or SO_2 ambient standard by December 1982, may use current actual emissions (or "old" Section 110 SIP limits if applicable) as the baseline. Under this option, sources in these areas could trade using individual emission sources not yet subject to RACT limits, so long as states clearly advise sources of their responsibility to find or produce reductions equivalent to future RACT requirements if and when the state imposes them and sources commit to meet these future requirements. This would give industry flexibility to create and use ERCs at the earliest date. It would also avoid having to negotiate individual RACT baselines through case-by-case SIP revisions.

States that choose not to rquire negotiated RACT baselines should be aware that their SIPs must still comply with Section 172(b)(2), which requires imposition of RACT "as expeditiously as practicable."

C. *No Double-Counting of Reductions.* To be considered surplus, an emission reduction cannot already have been included as part of the area's baseline emissions. Double-counting of reductions—granting credit for the same emission reduction, once to the state and a second time to a source for use in an emissions trade—must be addressed in the following situations.

(i) *Crediting Pre-Existing Emission Reductions.* In *nonattainment areas* credit generally cannot be granted for emission reductions made before nonitoring data was collected for use in SIP planning. Because monitored ambient levels may have *already* reflected these emission decreases, they would have been assumed in calculating the reductions needed to attain ambient standards. States should clearly identify in their rules the date before which reductions will not qualify for credit. The earliest acceptable baseline date would normally be the year of the most recent emission inventory or monitoring data used in planning Part D SIP revisions under the Clean Air Act Amendments of 1977.

In *attainment areas* emission reductions that occurred before the PSD emissions baseline was established generally cannot qualify for credit. States have already assumed these reductions in their PSD baselines. If

[3] See, 45 FR 52728 (Aug. 7, 1980). Several aspects of EPA's August 7th regulations, including the definition of baseline, are currently under judicial review. Any rulemaking changes which result from that litigation may be controlling here.

credited and later used, they could undermine the area's strategy to maintain air quality.

(ii) *Crediting Reductions From Shutdowns.* In general, a state may credit reductions from shutdowns for *bubble trades* if the SIP has not already assumed credit for these reductions in its attainment strategy. So long as reductions from shutdowns have not already been counted in developing an area's attainment strategy, they are an appropriate source of surplus reductions for bubble trades.

Many SIPs assumed a set quantity of reductions from new plant openings and existing plants shutdowns. These SIPs incorporated into their attainment strategy a net "turnover" reduction in emissions because new sources are generally cleaner than those that shut down. Double-counting would occur if a specific source received credit for reductions from such a shutdown, since that reduction was already assumed in the SIP's demonstration of attainment.

States have at least three options to grant sources credit without this kind of double-counting. *First,* they may re-examine any "turnover" credits in their SIP and decide not to take credit for these reductions. *Alternatively,* they may allow credit only after the total quantity of shutdown reductions assumed in the SIP has occurred. *Finally,* they may allow credit for a percentage of the total emission reductions realized from a shutdown, if they can show that such credit is consistent with the SIP's demonstration of attainment and reasonable further progress.

d. *Multiple Use of ERCs.* Once surplus reductions are credited, states should guard against their multiple use. In general, the same ERCs must not be banked by two different entities or used to satisfy two different regulatory requirements at the same time. To prevent these results, states should adopt an ERC registry or equivalent means of accounting for the creation, banking, transfer, or use of all ERCs. (See Section I.C.5)

e. *Reductions from Uninventoried Sources.* Sources not included in an area's SIP emission inventory may apply for credit. In general, so long as granting credit for reductions from these sources will not jeopardize an area's demonstration of attainment or reasonable further progress, there are no legal restrictions on such credits.

In *attainment areas* all sources, regardless of whether they have been included in an inventory, may create ERCs using actual emissions as the baseline. Those emissions need only have been included in the area's PSD baseline.

In *nonattainment areas,* whether sources not on the inventory can create ERCs will turn on how the SIP's demonstration of attainment was designed.

Some areas first monitored ambient values to determine required SIP reductions, then required a proportionate reduction in emissions from certain source categories in order to attain. These areas may grant credit for reductions from uninventoried sources in at least three ways. *First,* they could required the source to use a RACT baseline and grant credit only for reductions below that baseline. *Alternatively,* they could require the same percentage reductions as imposed on inventoried sources, and grant credit only for reductions in excess of that amount. *Finally,* where no demonstration of attainment exists, they may use either a negotiated RACT baseline or (in appropriate circumstances) an actual emissions baseline. (See Section I.A.1.B above)

Other areas developed SIP demostrations based on ambient air quality models rather than area-wide proportionate reductions. To the extent these DIPs demonstrated ambient attainment through reductions required from inventoried sources, reductions from sources not on the inventory can be credited using actual emissions as the baseline.

2. *Alternative Emission Limits Must Be Enforceable. Each bubble, netting, offset or banking transaction must be enforceable and must approved by the state. Under current EPA regulations reductions used in bubble, offset and netting trades must be federally enforceable.*[4] This requirement for enforceability can generally be satisfied either through existing procedures (including individual SIP revisions or state permits issued under 40 CFR 51.18) or through generic rules, since any enforceable compliance instrument imposing emission limits within the scope of a generic rule is deemed part of the SIP.

Emission limits estalished by a trade maust also be incorporated in a compliance instrument which is legally binding and practicably enforceable. *Trades involving individual SIP revisions* automatically satisfy this requirement.

For *trades under generic rules,* a compliance instrument could take the form of an agreement between the source and state, and operating or preconstruction permit, or a consent decree. Many State permits and permit procedures may need revisions to assure that they provide adequate compliance information. However, such revisions need only occur on a case-by-case basis as individual trades are approved.

Compliance instruments should assure that enforcement officials do not have to test simultaneously every emission source involved in a trade. This generally means source-specific emission limits. However, states may use an overall emission limit that applies to a group of emission sources which can be monitored sumultaneously. This will generally require a reliable method of determining compliance through production records, input factors, or similar indirect means. (See 45 FR 80824; Dec. 8, 1980)

The compliance instrument should also specify applicable restrictions on hours of operation, production rates or input rates; enforceable test methods for determining compliance; and necessary recordkeeping or reporting requirements. To be enforceable, these limits must state the minimum time period over which they will be averaged (e.g., lbs/hour, lbs/MMBtu averaged over 24 hours, production rate/day).

3. *All Emission Reductions Must Be Permanent.* An emission reduction credit must be a permanent reduction in the level of pollution emitted by a source. Use of an ERC which is not permanent could adversely affect air quality by allowing increased emission from both the source creating the ERC and the source where it is used.[5]

To receive credit for reductions in operations (e.g., a reduction from 3 to 2 workshifts), a source must have its permit or other compliance instruction altered to reflect the curtailment in production. Future increases in production beyond the permit amount would generally require compensating emission reductions.

[4] In July 1981 EPA administratively stayed certain rules relating to federal enforceability requirements for netting and offsets. 46 FR 36695 (July 15, 1981). This stay has expired and has not been renewed. Requirements of existing regulations accordingly remain applicable.

[5] As an alternative, states may allow trades whose emissions increases and emissions decreases are equal in duration rather than strictly permanent. This is the minimum legal requirement under the Clean Air Act, but may require states to track trades over time to assure ambient equivalence.

Permanence may present special but resolvable problems for reductions from small sources not subject to permits, offset requirements, or production constraints. States which grant credit from these source categories should address the possibility that reductions from one source may be followed by equal or greater increases from simular sources in adjacent areas.

4. *All Reductions Must Be Quantifiable.* Before an emission reduction can be credited it must be quantified. This generally means the state must establish a reliable basis for *Measuring the amount and rate* of the reduction and *describing its characteristics.*

a. *Measuring the Reduction.* To quantify ERCs, emissions must be calculated both before and after the reduction. Although many different methods of calculation are available (e.g., emission factors, stack tests, monitored values, production or process inputs), the same method and averaging time should generally be used to quantify emissions before and after the reduction.

b. *Describing the Reduction.* If an ERC is to be used at the time of creation, only characteristics necessary to evaluate that proposed use need be described. Where the ERC is to be banked and its eventual use is not yet known, a more detailed description is advisable.

B. Using Emission Reduction Credits

This section explains the substantive and procedural principles applicable to use of ERCs in bubble, netting or offset transactions.

1. *Substantive Principles for Using ERCs.*

a. *Emissions Trades Must Involve the Same Pollutant.* The Clean Air Act requires states to develop separate plans to attain and maintain the national ambient air quality standard for *each* criteria pollutant. Thus, all individual bubble, netting or offset cases must involve the same pollutant. Only reductions of particulates can substitute for increases of particulates, reductions of SO_2, for increases in SO_2, etc.

b. *All Uses of ERCs Must Satisfy Ambient Tests.* The Clean Air Act requires that all areas throughout the country attain and maintain ambient standards. In *nonattainment areas,* use of ERCs cannot create a new violation of an ambient standard or prevent the planned removal of an existing violation. In *attainment areas,* use of ERCs cannot violate an increment or ambient standard. The ambient effect of a trade generally depends on the dispersion characteristics of the pollutant involved.

VOC or NO_x Trades. Ambient considerations will not affect trades involving VOC or NO_x, whose impacts occur across broad geographic areas. Within such areas one ton of decreased emissions is generally equivalent in ambient effect to one ton of increased emissions, since the precise location of those increases and decreases ordinarily does not matter. For these pollutants, "pound for pound" trades may be treated as equal in ambient effect.

TSP, SO_2 or CO Trades. Ambient considerations are critical for trades involving SO_2, particulates, or carbon monoxide, whose air quality impact may vary with where the emission increases and decreases occur. One hundred tons of ERCs for these pollutants created at one site may balance the ambient impact of a 100-ton increase at a site nearby, but may only balance the effect of an 80-ton increase at a site further away. In addition to distance between sources, plume parameters, pollutant characteristics, meterology, and topography will also affect the ambient impact of such a trade.

As a general principle, bubble applications must demonstrate ambient "equivalence" and offset transactions must demonstrate ambient progress. Such demonstrations have typically been made through mathematical dispersion modeling which predicts the ambient impact of various emissions.

This Document authorizes use of a three-tiered screen with the degree of required modeling linked to the likely ambient impact of the proposed trade. The following sections describe use of this modeling screen to approve many trades without full-scale ambient modeling. Use of this modeling screen to define the scope of generic rules is discussed in Section II below.

(i) *Level I:* In general no modeling is needed if the proposed TSP, SO_2 or CO trade does not result in a net increase in applicable baseline emissions, the relevant emission sources are located in the same immediate vicinity, and no increase in emissions occurs at the source with the lower effective plume height. In such cases it can reasonably be assumed that "pound-for-pound" trades will produce ambient effects equivalent to what current modeling would predict, and modeling is not required.

(ii) *Level II:* Only limited modeling involving the specific emission sources in the trade is needed for trades not included in Level I, if there is no net increase in applicable baseline emissions and if emissions after the trade will not cause a significant air quality impact at the receptor of maximum predicted impact. In determining "significant" impact, states may use the significance levels established by EPA for determining when air quality monitoring is necessary for PSD cases: 10 $\mu g/m^3$ for the 24-hour standard for TSP; 13 $\mu g/m^3$ (24-hr) for SO_2; and 575 $\mu g/m^3$ (8-hr) for CO. (*See,* 45 FR 52709, Aug. 7, 1980). These levels appropriately identify trades whose potential ambient impact need not be further evaluated before approval.

(iii) *Level III:* Full dispersion modeling, considering all sources in the area of impact, is required if net applicable baseline emissions will increase as a result of the trade *or* if the trade will have a significant impact on air quality at the receptor showing maximum ambient impact.

This modeling screen will ensure that the air quality impact of trades is equivalent to the impact of the original SIP limits.

c. *Trades Should Not Increase Net Baseline Emissions in Nonattainment Areas.* Congress required *nonattainment areas* to demonstrate reasonable further progress (RFP) by reducing emissions each year in amounts sufficient to attain ambient standards by statutory deadlines. In general, RFP is measured by an areawide quantity of reduced emissions.

Trades in such areas which increase total emissions can generally occur only as individual SIP revisions in which the state either demonstrates that the trade is consistent with RFP or revises RFP as part of the proposed SIP revision. EPA will approve such revisions as amendments to the SIP, provided they comport with ambient air quality standards and reasonable further progress.

However, such trades may occur under generic rules where existing sources were required to reduce emissions beyond the amount required to bring the area into attainment. In such cases a growth margin was created which may be used at the discretion of the state to compensate for any increases in emissions without violating reasonable further progress requirements.

In attainment areas trades increasing total emissions could generally be permitted, but may consume some or all of the increment, trigger PSD review, or both.

d. *Emissions Trades Should Not Increase Hazardous Pollutants.* Under the Clean Air Act all sources must meet applicable Section 112 (NESHAPs) regulations for hazardous air pollutants. Except as may be specifically permitted in future Section 112 regulations, a source may neither use a bubble to meet these requirements, nor increase emissions beyond the levels they prescribe.

Where pollutants have been listed under Section 112, but are not yet subject to specific regulations, states may allow trades consisting of equivalent increases and decreases of the same listed pollutant at reasonably

close emission points. States may also approve trades in which reductions in hazardous emissions compensate for increases in non-hazardous emissions. For example, a source may trade benzene for any non-hazardous VOC, if the benzene emissions are decreased (i.e., "traded down").

e. *Emissions Trades Cannot Be Used to Meet Technology-Based Requirements.* The Clean Air Act specifically requires new or expanding sources to meet technology-based new source performance standards (NSPS), regardless of the attainment status of the area in which they are located. This requirement prohibits use of bubbles to meet or avoid NSPS, and has been interpreted to bar use of such a bubble to meet new source review requirements for best available control technology (BACT) in PSD areas, or lowest achievable emission rate control technology (LAER) in nonattainment areas. Thus, new emissions sources subject to new source review cannot use ERCs from existing sources to satisfy these requirements.

Expanding or modernizing sources can, however, use *internal* emission reductions from within the same plant to "net out" of new source review. Such sources still must meet NSPS, but are not subject to BACT in attainment areas (45 FR 52676; Aug. 7, 1980) or LAER in nonattainment areas (46 FR 50766; Oct. 14, 1981), since they are not considered new sources under Parts C and D of the Clean Air Act.

f. *Trades Involving Open Dust Emissions.* Trades involving open dust sources of particulate emissions may be approved based on modelled demonstrations of ambient equivalence. Sources proposing such trades should be required to undertake a post-approval monitoring program to evaluate the impact of their control efforts. If the results of monitoring indicate that initial open dust controls do not produce the predicted air quality impact, further enforceable reductions may be required. States must either require sources to acknowledge their responsibility for further reductions, or deem trading applications to be such an acknowledgment, as a condition of approval.

2. *Procedural Steps for Using ERCS.* Emission trades may be implemented through individual SIP revisions or state generic rules. This section describes principles applicable to either procedure. General principles for generic rules are discussed in Section II below. Special considerations for trades which still require individual SIP revisions are discussed in Section III.

a. *Bubbles Can Be Used to Achieve Compliance.* The bubble policy required that sources be subject to binding compliance schedules based on original SIP emission limits before being eligible to apply for bubbles. This requirement threatened sources with tight milestones for the purchase of conventional control equipment and tended to discourage both rapid compliance and flexibility. Under today's Policy Statement states may promote rapid compliance by allowing sources to agree to emission limits established as part of their bubble application, instead of requiring sources to agree to compliance plans based on their original SIP limits before an application can be filed.

b. *Extensions of Compliance Deadlines.* States may extend compliance deadlines for VOC or CO sources on a case-by-case basis as part of bubble approvals. The Clean Air Act limits such extensions to sources which are located in areas that have received VOC or CO attainment extensions until 1987, and whose bubble will be consistent with reasonable further progress requirements. Because this will usually require a revision of the state's reasonable further progress demonstration, such extensions must generally be submitted as SIP revisions.

However, states may also grant compliance extensions without case-by-case SIP revisions as part of bubble approvals under a generic rule. The rule should provide that: (1) Extensions may only be granted in areas which have received attainment extensions to 1987; and (2) the total amount of reductions claimed in the state's approved RFP demonstration will not be reduced for each year in question. For example, if a source wishes to defer 100 tons per year of reductions from 1982 to 1985, then as part of the bubble approval, the state must show that an additional 100 tons per year of reductions has already occurred in 1982, or that provisions for such additional reductions already exist.

c. *Pending Enforcement Actions.* A bubble cannot be approved for an individual emission source which is presently the subject of a federal enforcement action or outstanding enforcement order unless EPA (and where necessary the appropriate court) approves the proposal and the compliance schedule it contains. This applies to civil actions filed under Clean Air Act Section 113(b), criminal actions filed under Section 113(c), a notice imposing noncompliance penalties issued under Section 120, administrative orders issued under Section 113(a), or a citizen suit filed under Section 304 where EPA has intervened.

This requirement need not preclude bubble approvals under generic rules, provided an appropriate mechanism for securing and recording EPA approval is used. Sources should, however, be aware that such approvals cannot be finally effective until approved by the appropriate court.

C. Banking Emission Reduction Credits

State SIP rules may include a banking provision which addresses ownership and holding of ERCs over time. Without such a provision, firms risk losing surplus reductions should a major SIP revision or new set of control requirements be instituted. Generic banking rules can afford such ERCs substantial protection consistent with the Act's mandate to attain and maintain ambient standards.

The bank can accept and evaluate requests to certify an ERC, serve as a clearinghouse for credits on deposit, and account for transfers and withdrawals of ERCs. These roles will generally be performed by the state as part of its normal permitting activities.

The following sections address both minimum legal requirements for state banking rules and issues states should consider. States may adopt other approaches which produce equivalent results.

1. *Banking Rules Must Designate an Administering Agency.* Banking rules must identify the entity responsible for specific functions. While the state will ordinarily be responsbile for verifying and processing ERC requests, all or part of this responsibility may be delegated to other organizations. Such organization(s) must possess the resources and legal authority to implement delegated activities.

2. *Only ERCs May be Banked.* Banked emission reductions msut be *surplus, permanent, quantifiable* and *enforceable.* This generally means that such reductions must be made at the time they are deposited in the bank as ERCs. *However,* if a firm commits to produce a specific reduction in the future, a state may allow a conditional deposit to be made. In all cases the reduction must actually be achieved before it can be used in an emissions trade.

3. *Procedures for Banking ERCs Should be Defined.* To speed approval of trades and provide greater cerainty for potential ERC creators and users, state banking rules should clearly identify which proposed emission reductions can qualify to be credited and banked, the information required of sources to substantiate their claim for credit, and any required application forms.

4. *Banking Rules Must Establish Ownership Rights.* To prevent two entities from claiming the same ERCs, state banking rules must specify who can own ERCs. For example, while the source creating the ERC will generally be its owner, the state could, as part of its rule, reserve ownership of certain classes of ERCs to itself or local governments.

5. *Banking Rules Must Establish an ERC Registry or Its Equivalent.* An ERC registry or equivalent instrument lets states track ownership, use, and transfer of all banked ERCs. Banking rules must provide that no transfer of title to a banked ERC will take effect until the transaction is reflected in the registry. This tracking system is important to minimize disputes over ownership and provide a central list of certified ERCs which may be available. It can also provide useful information for quickly evaluating any proposed use of a banked ERC.

Information which may help evaluate proposed use of a banked ERC should be recorded at the time of its creation and entered as part of its banking record. This information should include the location of the source creating the ERCs, its stack parameters, the temperature and velocity of its plume, particle size, the existence of any hazardous pollutants, daily and seaonal emission rates, and any other data which might reasonably be necessary to evaluate future use.

To perform these tracking and clearinghouse functions the ERC registry must be accessible to the public. Subject to confidentiality considerations, states should make copies of the ERC registry available at convenient locations and times, and may want to publish a periodic summary of banked ERCs.

6. *Possible Adjustments to ERCs Based on Enforcement Considerations.* To avoid legal problems, banking rules should clearly state what, if any, changes may occur to ERCs after they have been banked. Once an ERC has been used by another source to meet a permit requirement, any violation of the conditions under which that ERC was created should result in enforcement against the source *producing* that emission reduction and not the source *using* the ERCs. If a state attempted to enforce against the source using purchased ERCs, a complex set of third-party lawsuits would ensue. This would likely discourage sources from purchasing ERCs in the Future.

7. *Possible Adjustments to ERCs Based on Ambient Attainment Considerations.* To assure the validity of its demonstration(s) of attainment, a state with a banking rule should assume that all banked emissions will ultimately be used. Thus, in evaluating their ability to attain national standards, states should add to their inventory or measured ambient value, all unused banked reductions at the site at which they were created.

Additional emission reductions may be required from sources because of their area's failure to attain ambient standards, because of an increment violation, or because new RACT requirements are being imposed under a SIP schedule. The existence of banked ERCs must not interfere with states' ability to obtain these additional reductions. For this reason state banking rules should specifically address how ERCs will be treated if additional reductions are required. Available options include:

a. *ERCs Are Absolutely Guaranteed Against Adjustment.* The state would determine the required quantity of reductions and assess necessary controls on the inventory. Sources with banked ERCs would not be exempt from any requirement for additional reductions, but could satisfy that requirement by using their banked ERCs, by reducing emissions elsewhere, or by purchasing equivalent ERCs.

To effectively implement this option, it would be particularly important to state new control requirements in terms of "RACT-equivalent" reductions.

b. *Current ERCs Are Fully Preserved,* but either their use *or* future ERC deposits are suspended until the SIP has committed to secure reductions sufficient to reestablish reasonable further progress or cure an increment violation. Use of either type moratorium would be consistent with air quality objectives while allowing sources to retain or use their entire quantity of banked ERCs. However, this option may be undesirable because of uncertainty regarding the moratorium's start, duration, or potential interference with user planning.

c. *Across-the-Board Discounting.* Under this option, all ERCs in the bank would be discounted by the same factor. For example, if a 10% additional reduction is required from a category of sources for the SIP's new demonstration of attainment, the state would discount all banked ERCs from those types of sources by 10%. Although the quantity of ERCs held by a firm will be reduced, the overall supply of ERCs will decrease, while demand will increase. Therefore, the overall value of remaining ERCs is likely, at minimum, to remain the same. Indeed, other sources may purchase banked ERCs to meet the 10% reductions required of them.

This option is relatively straightforward for VOC or NO_x. For SO_2 or TSP more detailed, source-specific modeling would generally be required to allocate the discount necessary to demonstrate attainment.

States may adopt any of these methods of accommodating possible additional reductions. They may also adopt any equivalent method which achieves the same objectives.

II. Trades Covered by State Generic Rules

This section explains expanded opportunities for states to develop generic rules under which certain classes of emissions trades will be exempt from individual SIP revision.

A. General Principles for Evaluating Generic Rules

A generic rule is approvable if it assures that (1) applicable net baseline emissions will not increase; (2) emissions trades otherwise requiring SIP revisions under §§ 110(i) and 110(a)(3) of the Clean Air Act will be evaluated under procedures that are sufficiently replicable in operation; and (3) emission limits produced under the rule will not interfere with ambient attainment and maintenance. Replicability generally means that specific modeling procedures are prescribed and that states have appropriately defined their choice of models, model inputs, and modeling techniques in applying these procedures to specific trades. Thus, these trades should not create new ambient violations or interfere with the planned removal of existing violations. By approving such generic rules EPA approves in advance an array of acceptable SIP emission limits, and no further case-by-case EPA approval is required.[6]

B. Scope of Generic Rules

States may use a range of mechanisms to exempt trades from EPA review as individual SIP revisions. While several mechanisms are explained below, states may submit other generic rules that satisfy these basic principles.

1. *De Minimis Trades.* Trades in which net baseline emissions do not increase and in which the sum of the emission increases, looking only at the increasing sources, totals less than 100 tons per year after applicable control requirements, may proceed without a

[6] Replicability more generally means a high likelihood that two decision-makers applying the rule to a given trade would reach the same conclusion. For one example of a generic rule incorporating a very simple formula that meets the test of replicability, see 46 FR 20551 (Apr. 6, 1981).

SIP revision. Such trades will have at most a *de minimis* impact on local air quality because only minor quantities of emissions are involved. Moreover, because only trades which produce no net increase in emissions can be exempt, overall air quality will not suffer. The Federal resources required to evaluate these trades could best be used to evaluate actions that have a potential impact on air Quality.[7]

2. *VOC or NO_x* Trades. All VOC or NO_x trades under a generic rule that assures no net increase in applicable baseline emissions may occur without individual SIP revisions.

The ambient impacts of VOC and NO_x emissions are area-wide rather than source-specific. All such emissions within a broad area are considered comparable, regardless of plume height, topography or related factors. Thus, the ambient impact of trades involving VOC or NO_x will by definition be equivalent to that of the sum of the SIP emission limits for the emission sources involved in the trade. As long as the sum of these emission limits is not exceeded, the limits for each specific emission source can be reallocated without adversely affecting air quality. This essentially arithmetical task is so mechanical that VOC or NO_x trades developed in this manner cannot reasonably interfere with ambient attainment and maintenance.

3. *SO_2* CO, or TSP Trades. For trades involving SO_2 CO, or TSP it is more difficult, but by no means impractical, to develop a generic rule which assures that valid ERC uses cannot reasonably interfere with attainment and maintenance.

The ambient impact of these pollutants depends on site-specific factors such as topography and plume height which are ordinarily evaluated by ambient modeling. However, if the emission sources are located in the same immediate vicinity and emissions decrease at the source with the lower effective plume height, therefore minimizing localized ambient impact, equal increases and decreases in emissions from these sources will ordinarily produce equivalent ambient effects (See Level I of the Modeling Screen). As a result, trades involving emission sources within Level I may be treated in the same manner as trades involving VOC or NO_x and may be exempted from individual SIP revisions.

EPA will normally approve generic rules that define "same immediate vicinity" as up to 250 meters between the individual emission sources involved in a trade. *However*, where such trades involve areas with complex terrain, some modeling might still be required to assure that ambient impact is properly considered. Generic rules should specify criteria for identifying such circumstances and for defining what modeling will be required.

4. *Other Mechanisms for Exempting TSP, SO_2, or CO Trades from Individual SIP Revisions.* Other TSP, SO_2 or CO trades can be exempted from individual SIP revisions if they occur under state generic rules which satisfy the replicability and air quality requirements stated above.

Possible generic approaches include:

(a) Developing SIP rules which allow identified sources to meet an array of specific emission limits consistent with ambient attainment and maintenance. For example, states could approve a modeled formula for two or more specific emisson sources which would both satisfy ambient concerns and let firms determine particular permit limits at each emission source. This formula would have to be adopted as part of the SIP.[8]

(b) Developing criteria for use of simplified Level II modeling (see section I.B.1.b, above) for specified trades. This approach would exempt trades which (1) produce no net increase in applicable baseline emissions, (2) can routinely be modeled in a predescribed manner, and (3) will not have significant ambient impact. The generic rule must specify either the particular model that will be employed in a given stituation, or criteria for selecting models in specified circumstances. To limit variability in modeling results the rule must also specify procedures for selecting input data (e.g., wind speed, stability class, source emission rate) which are sufficiently definite to meet the test of replicability. To determine whether a trade will have significant ambient impact these procedures should assess whether the change in emissions after the trade from the increasing source has the potential to cause an increase of more than 10 $\mu g/m^3$ over at 24-hour period for TSP, 13 $\mu g/m^3$ (24 hours) for SO_2, or 575 $\mu g/m^3$ (8 hours) for CO at the receptor of maximum predicted impact.

C Applicability of Generic Rules To Process Fugitive and Open Dust Emissions Trades

Trade involving *process fugitive emissions of VOC or NO_x* may routinely be approved under generic rules. However, because of their dispersion characteristics, it is more difficult to define generic rules that can be applied in a sufficiently replicable fashion to trades involving process fugitive or open dust TSP emissions.

In general *TSP trades involving process fugitive emissions* can be approved under generic rules if: (1) process fugitive emissions are traded against similar sources of process fugitive emissions, or (2) emissions from point sources are traded against process fugitive emissions which can reasonably be represented by a point-source dispersion pattern. This means that relevant parameters such as emission release height must be readily determinable. Unless such trades fall within Level I of the modeling screen or are *de minimis*, only processes whose fugitive emissions can be adequately represented by the dispersion model(s) specified in an approved generic rule can be included in a trade under that rule.

For *TSP trades involving open dust emissions* states should be aware that approvable generic rules which appropriately limit the choice of screening models and relevant inputs (including acceptable emission factors) will currently be difficult to formulate. Accordingly, open dust trades generally will have to be submitted as individual SIP revisions.

D. Enforcing Emission Limits Under Generic Rules

Alternative emission limits approved under generic rules are considered by EPA to be federally enforceable. Generic rules should specify that such alternative limits become applicable requirements of the SIP for purposes of §§ 113 and 304 of the Clean Air Act and are enforceable in the same manner as other SIP requirements. To assure that EPA and citizens know what emission limits apply, generic rules should also specify that EPA be informed of applicable emission limits before and after the trade, following approval of the trade by the state.

E. EPA Oversight of Trades of Under Generic Rules

The Clean Air Act requires EPA to monitor administration of SIPs, including generic rules. *See* § 110(a)(2)(H). EPA will audit the information supplied for each trade and

[7] Although states may exempt *de minimis* trades from federal SIP revisions, these trades are still subject to ambient tests. They should accordingly be evaluated by the state under the modeling screen (See Section I.B.1.b. above) or an equivalent approach.

[8] For example, the emission limits for the four stacks at the stuart Power Plant in Adams County, Ohio are 3.16 pounds of SO_2 per million BTU at each stack, or at the plant's choice (after notification to EPA), any limit in pounds per BTU which satisfies the following equation: $0.0791\ (EL_1+EL_2+EL_3+EL_4<1$. See 40 CFR 5.1881(11).

may request additional relevant information. Should EPA determine that approved trades are substantially inconsistent with generic rules in the SIP, it will notify the state and specify any necessary remedial measures.[9]

F. Public Comment

For trades occuring under generic rules, existing state statutes or regulations will generally provide reasonably adequate notice and comment opportunities. If these opportunities are not provided generic rules should explicitly address this issue.

To ensure public awareness consistent with § 304 of the Clean Air Act, states should also, at a minimum, publish any changes to emission limits which result from trades approved under a generic rule (see 46 FR 20554; April 6, 1981).

III. Trades Not Covered by State Generic Rules

In the absence of a generic rule, states and sources may continue to use SIP revisions to effect bubble or external offset trades. Individual trades may also fall outside the scope of an approved generic rule and still be implemented as individual SIP revisions. The principles described in the Policy Statement and this Document will generally be used to evaluate these emission trades.

Because of the ability of the SIP revision process to take account of individual variations, many trades which could not be accomplished under a generic rule may be acceptable use individual SIP revisions. For example, proposed bubles which produce a net increase in baseline emissions could nevertheless be approved through a SIP revision showing that requirements for attainment and maintenance were satisfied. In submitting such a bubble application, the state would have to revise its reasonable further progress demonstration to account for the increase in emissions and EPA would review the proposal to determine if the demonstration of attainment and RFP were satisfactor. Without such a SIP revision, trades increasing net baseline emissions would generally be acceptable only if compensating additional controls were already required in the SIP.

Through the SIP revision process, states and sources may also demonstrate that a general principle discussed in Section I above does not apply to their particular circumstances, or that such a principle may be satisfied in other ways. For example, they may show that a RACT baseline is unnecessary for a particular source because resulting reductions are not needed for attainment; that despite general requirements for use of an actual emissions baseline, an allowable baseline is acceptable in a particular situation based on air quality modeling; or that reductions from specific shutdowns or uninventoried sources can be fully credited without interfering with reasonable further progress and attainment.

EPA will make reasonable efforts to take prompt action on SIP trading proposals after a state has ruled on an individual application and submitted it to the Agency. EPA will encourage "parallel processing" of proposals, with EPA and state officials conducting concurrent review so that both agencies can give public notice of proposed action at roughly the same time. EPA can then take prompt final action after the state completes its proceedings, provided the state does not substantially alter the proposal after public notice. EPA will also publish non-controversial SIP revisions as immediate final actions, converting them to proposals only if adverse comments are received within 30 days (see generally 46 FR 44477; Sept. 4, 1981).

Appendix.—Regional EPA Emissions Trading Coordinators

Region I: Marcia Spink, Stationary Source Section, Air Programs Branch, John F. Kennedy Federal Building, Boston, Massachusetts 02203, (617) 223–4448; FTS 223–4448

Region II: Linda Comerci, Permits Administration Branch, Planning and Management Division, 26 Federal Plaza, New York, New York 10007, (212) 264–4333; FTS 264–4333

Region III: David Arnold, Air Programs Branch, 6th and Walnut Streets, Philadelphia, Pennsylvania 19102, (215) 597–7936; FTS 597–7936

Region IV: Archie Lee, Air Programs Branch, 345 Courtland Street, N.E., Atlanta, Georgia 30308, (404) 257–3286; FTS 257–3286

Region V: Dick Dalton, Mary Ryan, Air Programs Branch, 230 South Dearborn Street, Chicago, Illinois 60604, (312) 886–6053; FTS 886–6053

Region VI: Michael Mendias, Air Programs Branch, First International Building, 1201 Elm Street, Dallas, Texas 75270, (214) 767–2734; FTS 729–2734

Region VII: Charles Whitmore, Air Support Branch, 324 East 11th Street, Kansas City, Missouri 64106, (816) 374–6525; FTS 758–6525

Region VIII: Dale Wells, Air Programs Branch, 1860 Lincoln Street, Denver, Colorado 80296, (303) 837–3763; FTS 327–3763

Region IX: Wally Woo, Air and Hazardous Materials Section, 215 Freemont Street, San Francisco, California 94105, (415) 974–8210; FTS 454–8210

Region X: Dave Bray, Air Programs Branch, 1200 6th Avenue, Seattle, Washington 98101, (206) 442–1352; FTS 399–1352

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[9] A trade which does not meet the requirements of a generic SIP rule is not part of an SIP and by defintion cannot replace prior value emission limits in the SIP. (See 46 FR 20554–5; April 6, 1981). In these cases EPA must reserve the right to take remedial action to assure attainment and maintenance, including as a last resort enforcement of the original SIP limits.

federal register

Wednesday
April 7, 1982

Part IV

Department of Energy

Economic Regulatory Administration

Compliance With the National Environmental Policy Act and Environmental Impact Statement for Powerplant Conversions to Coal in the State of Florida

DEPARTMENT OF ENERGY

Economic Regulatory Administration

Compliance With the National Environmental Policy Act and Environmental Impact Statement for Powerplant Conversions to Coal in the State of Florida

AGENCY: Department of Energy.

ACTION: Notice of intent to prepare an environmental impact statement and notice of scoping meetings.

SUMMARY: The Department of Energy (DOE) announces its intent to prepare an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969 (NEPA), to analyze the potential for cumulative impacts associated with its proposal to issue prohibition orders affecting up to 31 powerplants (Listed in Attachment A) in the State of Florida under the authority granted the Secretary of the Department of Energy in the Powerplant and Industrial Fuel Use Act of 1978 (FUA), as amended by the Omnibus Budget Reconciliation Act of 1981 (OBRA).

The purpose of the statewide document is to determine the cumulative statewide and community impacts likely to result from a number of site specific coal conversions stemming from the DOE actions. DOE intends to pursue site specific NEPA evaluations for each proposed conversion within the jurisdiction of FUA. The statewide EIS will aid Florida state agaencies in identifying likely conversion candidates by providing a general framework for site specific environmental analyses that will be done as part of the NEPA compliance requirement.

The public is invited to attend one of the following meetings to express its view on the substantive scope of the statewide EIS and on the significant environmental issues which the document should address. Dates of Scoping Meetings: April 28, 1982 (Tallahassee), April 29, 1982 (Orlando), April 30, 1982 (Miami)

HEARING LOCATIONS:

(1) Department of Environmental Regulations, Twin Towers Office Building, 4th fl. Conference Rooms B&D, 2600 Blairstone Rd., Tallahassee, Florida 32301

(2) Chamber of the City Council, City of Orlando, 400 S. Orange Avenue, Orlando, Florida

(3) City Commission Chamber, City of Miami, 3500 Pan American Drive, Miami, Florida

TIME: 10:00 a.m.

Notification to Attend and Submission of Comments: Those individuals planning to attend one of the scoping meetings should contact Mrs. Ellen Russell at the address printed below. Written comments or suggestions for consideration in connection with the preparation of this EIS should be transmitted to Mrs. Russell by April 12, 1982.

FOR FURTHER INFORMATION CONTACT:

Ellen Russell, Office of Fuels Programs, Economic Regulatory Administration, Department of Energy, 1000 Independence Ave., SW., Rm. GA-093, Washington, D.C. 20585, (202) 252-2201,

or

Elizabeth V. Jankus, Environmental Compliance Division, Department of Energy, 1000 Independence Avenue, SW., Washington, D.C. 20585, (202) 252-4606.

SUPPLEMENTARY INFORMATION: The Department of Energy is preparing an EIS for the State of Florida to analyze the potential environmental impacts associated with the proposed conversions of up to 31 powerplants at 15 stations from oil to coal. The cumulative approach is being taken because the geographic relationship of these plants to each other (Attachment B) [1] indicates that certain individual impacts, rather than being viewed as isolated occurrences, should be viewed collectively to identify any cumulative or interactive effects, in accordance with the CEQ regulations 40 CFR 1508.7 and 1508.25.

I. Nature of the Action

Under FUA, as amended by the Omnibus Budget Reconciliation Act of 1981, a utility may certify to DOE that it is technically and economically feasible to convert a powerplant from oil to coal. DOE may then issue to the utility a prohibition order, which grants to the utility the status under the Clean Air Act of an existing emission source for the powerplant. DOE issuance of such orders may constitute a major Federal Action under NEPA, and thus requires the appropriate level of NEPA compliance. The statewide EIS described herein will serve as the middle level of a tiered impact assessment between the broader analysis of the Fuel Use Act Programmatic Final Environmental Impact Statement (April 1979) and the future site specific environmental analyses addressing the impacts of individual plant fuel conversions.

II. Details on Site Selection

The 31 Florida powerplants (Attachments A) included in the environmental impact analysis are located in the northwestern, central and southeastern portions of Florida. These 31 plants were selected and submitted to DOE by the Florida Public Service Commission as potential recipients of proposed prohibition orders under the amended FUA. The Commission's initial selection of potential candidates was based on the size and age of the unit. Originally, candidates were units 200 MW or larger constructed after 1970 or units constructed prior to 1970 where another unit at the same site was constructed after 1970. Subsequent to the application of these criteria other utilities indicated interest in coal conversion and were included in the list.

III. Purpose of the Environmental Impact Statement

The purpose of this statewide EIS is to assess the impacts of proposed conversions to coal through the analysis of the cumulative and interactive effects within Florida. The EIS will identify those environmental issues which are of concern to the State of Florida. Currently impacts related to air quality (including long range transport of sulfates and acid rain), water quality, solid waste disposal, transportation of fuel and solid waste, fuel availability, economic growth, and health effects have been identified as major issues and will therefore be addressed in the analysis. Other impacts determined during the public scoping process as being potentially significant will also be addressed. In addition, the EIS will analyze localized effects where interaction between two or more plants proposed for conversion raises questions regarding compliance with applicable environmental standards. Subsquent EISs on proposed individual conversions will analyze site specific impacts.

The Fuel Use Act mandates that all facilities undergoing conversion meet all applicable environmental requirements. The impacts of the proposed plant conversions that are in proximity to each other may be interactive and their impacts must be considered collectively when assessing compliance with environmental standards. One major criterion for assessing the reasonableness of proposed subsets of conversions are the provisions of the Clean Air Act, as amended (CAA). Under the the CAA the State of Florida (with EPA approval) retains control of the emission levels produced by the

powerplants under consideration. To analyze the effect on air quality of multiple coal conversions, DOE must make assumptions about the actions that the state will take in permitting future coal conversions, particularly with regard to allowable levels of sulfur dioxide.

In order to capture the potential variability in State decisions about emissions limits, DOE proposes to model several scenarios each based on a different emission unit. Based on preliminary meetings with State agencies and utilities and following are currently under consideration: New Source Performance Standards; the State Implementation Plan (SIP) as it applies to the units specified; and limits, other than the SIP, that are currently applied to specific units.

The analysis of the scenarios discussed above (or others that DOE may analyze) may show that stations located in proximity to one another would result in "hot spots," *i.e.*, areas where combined emissions may exceed applicable limits on a subregional basis. In these cases further analysis will be conducted to determine feasible mitigative strategies.

It should be noted that compliance with each of the emission scenario implies the use of different types of coals and different types of pollution control technologies. The environmental impacts associated with these combinations will be considered in the impact statement. The public is encouraged to recommend other air quality scenarios that it feels should be assessed.

The public is also encouraged to recommend methodologies for establishing reasonable "subsets" of alternatives among plants so affected. The air quality scenarios associated with the EIS will only examine the use of coal, since from an environmental perspective the use of this fuel represents a worst case. Other fuels (such as refuse derived fuel) can only be assessed realistically at the site specific level, and will be addressed in detail in site specific NEPA documents.

However, the use of other alternative fuels will be addressed at the individual sites on a qualitative basis, and constraints on their use at this scale will be identified. Other alternatives beyond the immediate program authorities of FUA (e.g., conservation) which could help achieve the goal of reduced oil usage will also be addressed in the EIS. The public is encouraged to comment on the nature and scope of such alternatives.

The EIS will be prepared in accordance with section 102(2)(C) of the National Environmental Policy Act (NEPA). Upon completion of the draft EIS, its availability will be announced in the **Federal Register** and comments will be solicited.

IV. Purpose of Scoping Meeting

DOE desires to know what the public considers to be the major environmental issues associated with the potential conversion of the 31 powerplants in Florida from oil to coal. The meetings in Tallahassee, Orlando, and Miami will be held to receive comments on the structure of the EIS, anticipated energy/environmental problems, actions that might be taken to address them, and reasonable alternatives that should be considered.

Comments on the feasibility of converting the sites are not appropriate for this meeting and should be reserved for the forum provided by the administrative process which will follow in reaching a decision on specific orders. That process will provide ample opportunity for public discussion and comment on those individual site decisions.

The meetings are scheduled to begin at 10:00 a.m. and will continue until all persons wishing to speak have had an opportunity to do so.

If possible, those planning to present information at the meeting should notify Mrs. Russell. Participants are encouraged to submit to Mrs. Russell, in advance, their intent to participate and copies of any written material. However, public participation is encouraged even without advance submission of written material. Attendees at the meeting will be asked to register. All comments or suggestions made at the meeting as well as written material submitted until then will be carefully considered during the preparation of the draft EIS.

Questions regarding the meeting should be addressed to Mrs. Russell at (202) 252–2201.

Issued at Washington, D.C., on March 31, 1982.

William A. Vaughan,

Assistant Secretary, Environmental Protection, Safety, and Emergency Preparedness.

ATTACHMENT A—FACILITIES INCLUDED IN THE CUMULATIVE STUDY

Company plant	County	Unit No.
Florida Power & Light		
1. Cape Canaveral	Brevard	1, 2
2. Fort Meyers	Lee	2
3. Manatee	Manatee	1, 2
4. Martin	Martin	1, 2
5. Port Everglades	Broward	1, 2, 3, 4
6. Riviera	Palm Beach	3, 4
7. Sanford	Volusia	4, 5
8. Turkey Point	Dade	1, 2
Florida Power Corp.		
1. Anclote	Pasco	1, 2
2. Bartow	Pinellas	2, 3
Jacksonville Electric Authority		
1. Northside	Duval	1, 2, 3
Orlando Utilities Commission		
1. Indian River	Brevard	2, 3
Tallahassee, City of		
1. Hopkins	Leon	2, 1
City of Gainesville		
1. Deerhaven	Alachua	2
City of Lakeland		
1. McIntosh	Polk	1, 2

31 powerplants, 15 stations.

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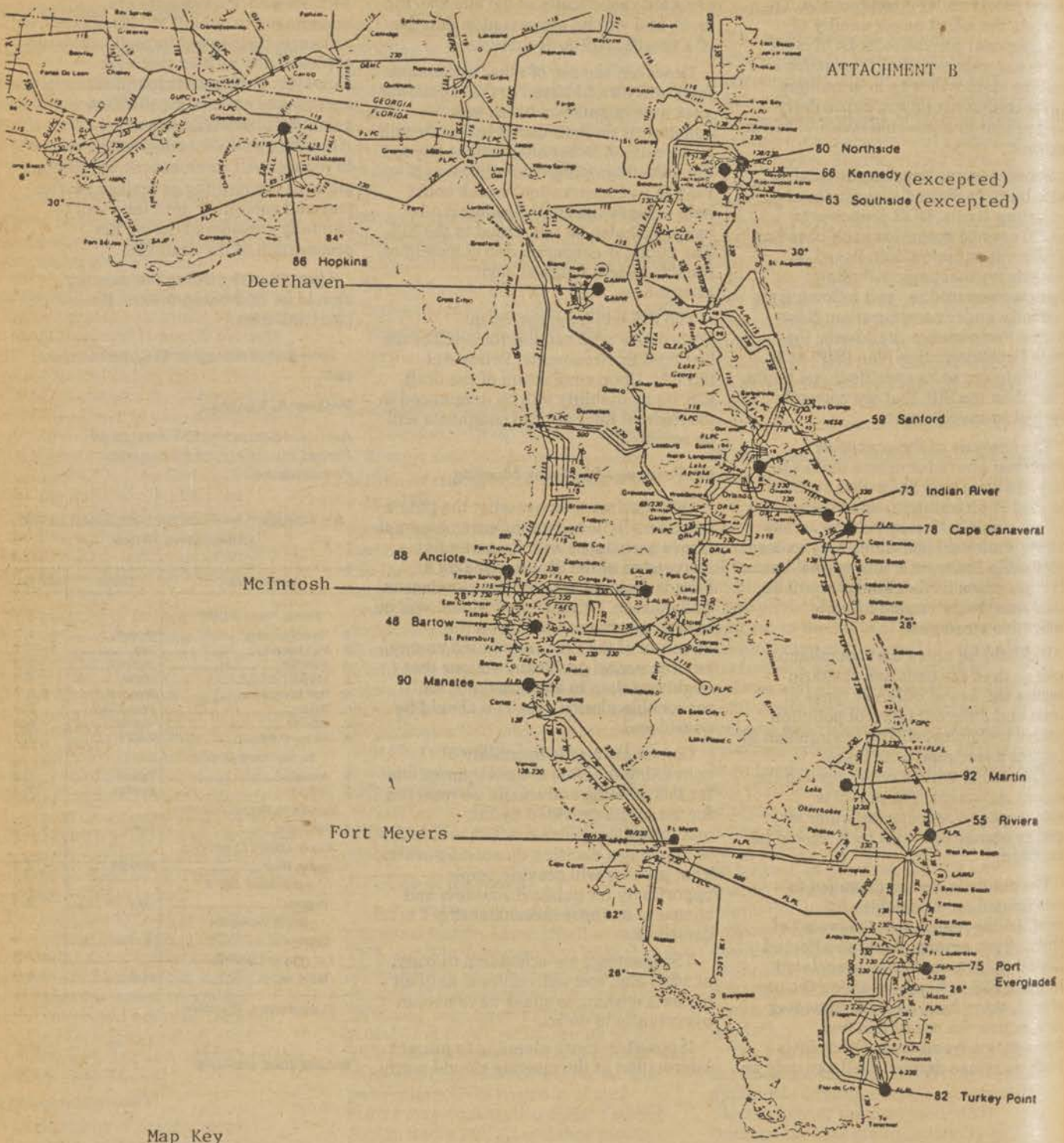

Map Key

Stations ●

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