

EPA OVERSIGHT OF  
AIR NEW SOURCE REVIEWS

A Report by the Program  
Evaluation Division

Cheryl Wasserman  
Stan Meiburg

July, 1981

## TABLE OF CONTENTS

Executive Summary

Introduction

Part I: States Want But Are Not Getting Meaningful Oversight

Part II: EPA Is Not Delivering Where We Have A Comparative Advantage

Part III: Options for Future Oversight

The Goals of New Source Review

An Alternative Look at EPA Goals

Oversight Philosophies: How Much Is Enough?

EPA the Franchiser: Focusing on Quality

Tailoring Oversight: Adapting to States' Needs

Mechanisms of Oversight

Routine State Submissions

Direct Involvement in Permit Actions

Program Audits

Plant Audits

Objectives and Measures

Consequences of Oversight

Summary of Recommendations

Part IV: Appendices

- 1) Summary of Existing Regional NSR Oversight Approaches
- 2) Assessment of Routine Submissions to EPA
- 3) State Comments on Direct EPA Involvement in State Permit Actions
- 4) Summary of State Views on EPA Program Audits
- 5) Present Implementation of New Source Review and Oversight

## EXECUTIVE SUMMARY

The review, prior to construction, of proposed new and modified stationary sources of air pollution has been among the most complex and controversial areas of EPA activity in the past ten years. Recently, however, EPA has been attempting to reduce its own direct involvement in individual new source decisions and return the full responsibility for new source review (NSR) to State and local agencies. In doing so, questions have arisen concerning EPA's role and methods in overseeing the conduct of new source review by State and local agencies.

The present study was commissioned by EPA's Office of Air Quality Planning and Standards to evaluate current oversight and look for ways it might be done better. It involved site visits to four EPA Regions (III, IV, V, and VI) and seven State air pollution control agencies (Pennsylvania, Virginia, Georgia, South Carolina, Texas, Ohio, and Michigan), along with surveys of EPA's Regional offices on their current oversight practices and discussions of the study with EPA Headquarters and Regional managers. The study looked both at existing State practices in reviewing new sources and at ways which EPA has used to oversee them. "Oversight" in this study refers both to mechanisms such as permit reviews and program audits, and to the delivery of EPA assistance to State programs.

### FINDINGS ON CURRENT OVERSIGHT

#### I. States Want But Have Not Been Getting Meaningful Oversight

All of the State agencies we visited agreed that some form of EPA oversight of new source reviews is necessary, important, and an appropriate part of EPA's national responsibility for the control of air pollution. The chief reason why is to ensure equity among the States in the treatment of new sources of pollution. State agencies are concerned that without EPA oversight, they will lose new industry to other States which relax pollution control requirements to attract industry. EPA's most important oversight role is to ensure that new sources meet equivalent minimum national standards no matter where they locate.

However, existing oversight of new source review varies tremendously from Region to Region, ranging from a minimal program based on informal contacts to a detailed system of program audits, and from extensive review of draft permits to no routine reviews. The reasons for this include continuously changing program regulations, the inability of some Regions to delegate parts of the program, lack of effective oversight guidance from Headquarters, and uncertain organizational roles in the Regions.

Many States have been subject to only minimal EPA oversight of new source review. Where more extensive oversight has occurred, States had several concerns.

o Approach Taken by EPA

Reviews have sometimes been conducted by inexperienced staff, or by different staff each year, with the result that a lot of time is spent going over old ground and States gain little of value from oversight. Some EPA staff were criticized for "unnecessarily adversarial attitudes" towards State agencies.

o Standards of Judgment Used by EPA

States feel they are subject to "evolving criteria" and that they do not know what EPA's expectations are. In the absence of clear criteria, "zero errors" becomes the effective standard of judgment -- and EPA fails to distinguish between trivial, isolated errors in specific permits and serious flaws in State programs.

o Consequences Which Follow Oversight

When EPA identified problems in specific permits, States felt EPA has sometimes acted without first giving the State a chance to correct the problem on its own, which undermines the State's credibility with sources. Inappropriate EPA comments on draft permits after the close of State public comment periods were also cited as a problem.

II. EPA Is Not Delivering Where It Has A Comparative Advantage

State officials identified four roles where EPA has a "comparative advantage" which it is not fully using to support State operating programs. These are:

- 1) Improving Levels of Pollution Control
- 2) Advancing Air Quality Modeling
- 3) Making Decisions on Policy Questions
- 4) Training of State Staff

1) Improving Levels of Pollution Control

EPA now fosters improvements in the level of pollution control by promulgating new source performance standards (NSPS) and by providing information about new control techniques for use in State permits.

State air pollution control officials unanimously endorse the development of NSPS, and would like EPA to move faster in issuing NSPS for more categories of sources -- particularly industrial boilers. EPA also needs to improve its ability to transfer technical information about control approaches to States by improving the usefulness of the present "BACT Clearinghouse."

## 2) Advancing Air Quality Modeling

EPA has a potentially fruitful comparative advantage in advancing the accuracy and utility of models which predict the ambient impact of source emissions. However, States criticized EPA's modeling program for a) making it difficult to get alternative models approved, and b) discouraging the development by States and industry of more "user-oriented," lower cost models while failing to reduce the cost of applying EPA's own models.

## 3) Decisions on Policy Guidance

Several States expressed frustration about the length of time it took to get guidance on policy questions from EPA. They commented that EPA Regional offices tend to refer all such questions to Headquarters, which treats each question as a new occasion for national policy guidance. States also noted that organizational conflicts within EPA Regional offices can delay authoritative rulings by forcing even minor issues up to the Regional Administrator for resolution.

## 4) Training of State Staff

Several States requested that EPA continue and expand its program of training State staff in areas related to new source review -- and were critical of recent cutbacks which the Agency has made in this area. Recent EPA workshops to explain the revisions of the PSD regulations and training sessions for State enforcement personnel were praised by State officials. Budget restrictions and constraints on travel by State employees were cited as the two biggest drawbacks to further State participation in EPA training.

## FINDINGS ON CURRENT IMPLEMENTATION

- o States generally believe that they understand and can conduct sound reviews of permit applications by new sources. Most applications are from relatively small sources and are routine State actions. However, for large or unusual sources, States depend upon NSPS or control guidance from EPA or neighboring States. The absence of this guidance creates substantial difficulties for States in trying to independently evaluate the claims made by applicants.
- o Most of the air quality analyses which States conduct are for minor new sources where local downwash conditions threaten to violate ambient standards in the vicinity of the plant. This analysis may affect stack heights at some minor sources. However, air quality analysis has little effect on the siting or the emissions limits of most major new sources.
- o State modeling capability has improved since the imposition of the new PSD requirements and their emphasis on the use of guideline models.

- o States do little design review of prospective new/modified sources from the standpoint of determining the applicant's ability to comply continuously with air pollution standards.
- o States pride themselves on being able to process new source permits quickly (e.g., between 40 and 120 days). States appear to take substantially less time to review major source applications than EPA does. This is an incentive to States to take on programs such as PSD.
- o States have increasingly tried to formalize their procedures for reviewing permit applications and recording the results of these reviews. However, several States were not satisfied with their performance on such items as keeping accurate files, and would like additional assistance from EPA in this area.
- o States would like to make better use of EPA plant audits for inspector training. EPA inspectors could function like district sales managers, observing State performance and giving subsequent suggestions on how performance could be improved.

Appendix 5 contains a more specific discussion of implementation in each of the following areas:

- o Applicability Determinations
- o Control Technology Review
- o Air Quality Analysis
- o Permit Review for Enforceability
- o Public Participation
- o Operating Procedures

Each discussion notes our findings, describes current EPA oversight mechanisms and possible problems, summarizes State comments and concerns, and suggests options for EPA oversight in each area. These options are consistent with the overall oversight recommendations summarized below and laid out in more detail in Part III of the report.

## RECOMMENDATIONS (Also see summary, pages III-30 and 31)

### I. EPA Should Adopt a "Franchiser" Approach to Oversight

#### 1) Focus Attention on Goals

EPA should use oversight to determine whether State programs are carrying out their overall mandate, rather than whether every action on every individual permit has been taken exactly as EPA would have done.

#### 2) Success Is Improving State Programs

EPA should direct its efforts towards improving the quality of State programs. This requires that oversight be tailored to the conditions of each State program. However, oversight may also include a special emphasis on a few problem areas each year which have been identified as national concerns.

### 3) Use Clear Measures of Performance

EPA should establish clear, objective measures and standards of performance for oversight of a State's overall program and for specific program elements. To be useful, these measures and standards must be developed and applied through close consultation with each individual State agency. (Note: possible measures are discussed on pages III-23 through III-27).

### 4) Change Present Oversight Mechanisms

EPA should decrease its direct involvement in specific permit actions except in unusual cases (specified on pp. III-13 and III-14 of the report). However, EPA should use program audits conducted by experienced EPA staff. Audits should include site visits to State offices, discussions with State staff and managers, and a review of a sample of final permits selected according to targeting criteria which have been discussed in advance with the State. Results of the audit should be discussed with State managers in an exit interview and written up in a formal report of findings. EPA should also change its present enforcement oversight ("plant audits") to make better use of the opportunities they offer for training State personnel.

### 5) Consequences of Oversight: State Actions

EPA should give States a full opportunity to correct problems with either a specific permit or the State program which oversight may uncover. When program problems are at issue, EPA should focus on mechanisms it can use (training, technical assistance, grant assistance) to help correct them. Grant conditions can be used, but they should focus on producing State program improvements rather than "bean counting." Independent EPA action to change individual permits should be limited only to extreme cases and taken only with the approval of top Regional management after the State has had time to correct the problem on their own.

## II. EPA Should Improve Delivery in Areas of Comparative Advantage

### 1) Improve Promotion of Better Control Strategies

EPA should improve its dissemination of technical information on control technologies, in a form which States have determined will be useful to them. EPA should also investigate alternative means to promote the development of good control strategies (e.g., an award to new facilities which use exemplary control systems). As suggested in EPA's Continuous Compliance strategy, EPA should develop design review guidance which helps State and local design reviewers address potential future operation and maintenance problems.

### 2) Encourage More Useful Models

EPA should expedite the approval and availability of model modifications which decrease their cost and complexity to users.

3) Improve Headquarters/Regional Communications

Existing mechanisms (e.g., quarterly Air Branch Chief meetings; Air Programs Policy and Guidance Notebook, annual conferences of Headquarters and Regional staff) should be continued and developed further to reduce delays in Headquarters/Regional communication on policy questions.

4) Improve Delivery of Training

EPA should review its air pollution training activities and approaches to see how changes can be made to increase delivery to States at reduced cost.

## INTRODUCTION

The review, prior to construction, of proposed new and modified stationary sources of air pollution has been among the most complex and controversial areas of EPA activity in the past ten years. EPA's involvement in new source review had its beginning in the 1970 Clean Air Act, through the mechanism of the State Implementation Plans. Two requirements which the Act laid out for implementation plans were of particular importance for new sources: the requirement that State plans provide for the maintenance of ambient air quality standards once they were attained or where they were already being met; and the requirement that State plans include procedure for review of the location of new sources to which a new source performance standard (NSPS) would apply.

The requirement to "maintain" standards in the 1970 Act involved the review of new and modified sources because it attempted to anticipate the air quality problems created by future industrial growth. While State Implementation Plans were to control existing sources of pollution so that all areas of the country attained the ambient standards by 1975, it was recognized that industrial growth could cause renewed violations of the standards unless emissions resulting from that growth were carefully controlled. EPA therefore required State plans to contain provisions for review of all new and modified sources (both "majors" and "minors") to ensure maintenance of the national standards.

As it was originally envisioned, NSPS were to be the chief means by which EPA and State and local agencies were to control these "growth" emissions. NSPS required that a source achieve the degree of emissions limitation achievable by the best demonstrated system of emissions reduction, taking cost and other factors into account. Standards covering most types of new sources were to be promulgated by EPA, and all new sources locating anywhere in the country would have to meet them. The presumption was that: 1) NSPS would cover a wide variety of industries, and 2) that sources which met NSPS emissions limits would generally also not threaten the attainment and maintenance of the ambient air quality standards. The review of the location of NSPS sources, however, was made a special requirement out of concern that even with NSPS control, too many new sources locating in the same place could cause violations of an ambient standard.

### The Growing Complexity of New Source Review

New source review has become considerably more complex since the passage of the 1970 Act. In issuing regulations in 1971 for the approval of State implementation plans, EPA

included provisions which were interpreted as allowing the deterioration of air quality in areas which had relatively clean air. These provisions were challenged in court, a challenge which eventually resulted in a requirement that EPA develop regulations to "prevent significant deterioration." These "PSD" regulations were first issued in December, 1974. They included a case by case expansion of the NSPS concept to major source categories not yet covered by NSPS (which were suffering from delays in development). They also included highly controversial provisions which limited the allowable deterioration of air quality in areas which were cleaner than national standards (the "increment" system).

Similarly, although all areas of the country were supposed to attain the national ambient air quality standards by 1975, it became clear very quickly that this goal could not be reached. In theory, EPA could have been required under the terms of the Clean Air Act to forbid all new source growth in areas of the country which had failed to attain the ambient air quality standards by the statutory deadline. Instead, however, EPA proposed a policy which would allow major new sources to construct in non-attainment areas as long as they obtained "offsetting" emissions reductions and employed the "lowest achievable emissions rate" -- the "emissions offset interpretive ruling".

These two provisions became the basis for substantial legislative revisions to the Clean Air Act in 1977. The amendments affecting new source review were contained primarily in a new Part C and Part D of the Act, which specified requirements for "major" new and modified sources in PSD and in non-attainment areas respectively. Both sets of requirements were still to be imposed through revisions to State Implementation Plans (required by the 1977 amendments). The Part C provisions governing PSD, however, required sources to get a direct federal permit in order to be able to construct if State plans were not approved by EPA. Areas which had not attained the standards, and which did not submit approvable Part D SIP revisions (including provisions for new source review) to attain them, were to be subject to a construction moratorium on all major new sources or modifications. Both Part C and Part D continued the EPA approach of requiring stringent new source emissions controls on a case by case basis. Meanwhile, EPA continued to set both NSPS and national emissions standards for hazardous air pollutants (NESHAP), and was delegating responsibility for implementing these to States on a category by category basis as new standards were established.

#### EPA Concern About "Oversight" of New Source Review

EPA had originally provided for an "oversight" function by requiring States to submit all draft permits and public notices to EPA, though in practice this procedure was seldom followed.

However, EPA became more concerned about the oversight of State programs at the time of its offset ruling, due to the belief that air quality in existing non-attainment areas could worsen significantly due to growth unless new emissions sources in these areas were well controlled and offset by further reductions. Moreover, the controversy and complexity surrounding PSD resulted in delays by States in adopting their own PSD rules and a greater direct EPA role in issuing new source permits than had been originally envisioned.

In recent years EPA has been attempting to reduce its own direct involvement in individual new source decisions and return the full responsibility for new source review to State and local agencies. However, this effort has not been fully successful, nor has it been carried out with equal force in all of the EPA regions. As long as EPA retains the national responsibilities assigned to it by the 1977 amendments to the Act, and retains its responsibility for ensuring the attainment and maintenance of national ambient air quality standards, EPA will continue to have some role in ensuring that new sources do not result in violations of these national goals. This role, however, is becoming less and less one of a direct actor and more and more one of overseeing the actions of others.

### Project Goals and Conduct

Our charge in this project, as specified by the Director of EPA's Office of Air Quality Planning and Standards in the fall of 1980, was to look for ways in which this oversight might be done better. To do this, we conducted a series of site visits to four EPA Regions (III, IV, V, and VI) and seven State air pollution control agencies (Pennsylvania, Virginia, Georgia, South Carolina, Texas, Ohio, and Michigan). These visits were conducted in conjunction with staff from the New Source Review Office in EPA's Office of Air Quality Planning and Standards. Following each State visit, we prepared a draft summary of our discussions with State managers and staff sent this draft to the State for review and comment, and incorporated their comments into a final report on each site visit. We have also surveyed EPA's Regional Offices on their current oversight practices, and have discussed the study with numerous EPA Headquarters and Regional managers and with representatives of the State and Territorial Air Pollution Program Administrators (STAPPA).

### A Note on Definitions

The term "new source review" is often used by different people to mean different things. For the purposes of this discussion, the term "new source review" will include all Federal air pollution control requirements which any major new source or modification must meet. This includes the emissions

offset, PSD, NSPS, and NESHAP program requirements. This is because all these different parts are ultimately supposed to be elements of a single review program administered by the States.

Each unified State "new source review" program would also include, of course, any State-specific requirements for new or modified sources. However, for convenience's sake, provisions which new or modified sources must meet solely because of State regulations will be referred to as "State new source review requirements."

The term "oversight" is also subject to different definitions. We use the term here to encompass all of EPA's interaction with and involvement in State new source review programs following SIP approval or delegation. This includes not only program "audits" or direct EPA involvement with individual State permits, but also the delivery of EPA technical assistance to States in targeted areas where experience has shown that such assistance can help State and local agencies exercise their responsibilities for new source review.

## PART I: STATES WANT BUT HAVE NOT BEEN GETTING MEANINGFUL OVERSIGHT

All of the State agencies we visited agreed that some form of EPA oversight of new source reviews is necessary, important, and an appropriate part of EPA's national responsibility for the control of air pollution. However, some States commented that they had seen very little evidence of any meaningful EPA oversight to date. Others which had experienced oversight had definite ideas about what they did and did not want to see continued in any future oversight program.

### Why Is EPA Oversight Needed?

According to the State agency officials, the chief reason why some form of EPA oversight of new source review is needed, even after all NSR programs become the full responsibility of a State, is to ensure equity among the States in the treatment of new sources of pollution. State agencies are concerned that without EPA oversight, both they and other States would come under irresistible pressure to relax pollution control requirements for new sources as part of their general competition to attract new industry. EPA's most important oversight role, in the view of these States, is to referee this competition by ensuring that new sources have to meet equivalent minimum national standards set forth by the Clean Air Act no matter where they locate, so that discounting pollution control does not become a legitimate incentive for drawing industry into some States and out of others.

Although equity considerations are the greatest concerns of State agencies, some States also see other opportunities which an effective oversight program could promote. In some cases, State officials feel that oversight could be a chance for the State to assess its own program in conjunction with EPA, identifying areas which need improvement and ways in which this could be done. Some States also feel that oversight will help them because they can demonstrate the quality of their program to EPA at first hand, and a "good" EPA rating would help the State agency to respond to their own public officials and constituencies. In some cases, States feel that the chance to communicate directly and openly with EPA Regional staff can help to avoid some of the problems which have characterized State-EPA relations in the past.

### Current EPA Oversight of New Source Review

The most striking characteristic of current EPA oversight of State new source reviews is its variability from Region to Region. Existing approaches to NSR oversight range from a minimal program based almost exclusively on informal contacts

to a detailed system of audits, and from extensive review of draft permits to review of nothing on a routine basis. (See Appendix 1 for a fuller discussion of this point).

These differences are not surprising. EPA Headquarters has never spelled out an oversight philosophy which went beyond the review of 10% of PSD permits to "ensure" that States followed the regulations. In the absence of guidance from Headquarters, only a few Regions have independently articulated an oversight philosophy of their own. Much "oversight" has therefore consisted of ad hoc reactions to the pressures of events. An example of this is the emphasis which EPA has placed on issuing PSD permits, not because PSD sources posed inherently greater pollution problems or threatened more severe health effects, but rather because in most instances PSD permits were federally-issued permits. In contrast, new source permits for non-attainment areas, because they were "State" permits, generally have received less EPA attention.

There are several underlying reasons why new source review oversight has taken its present fragmented course.

- o The Clean Air Act and its associated regulations have been in constant turmoil ever since 1970. To cite only one example, the rules governing PSD were:
  - Required by court suit in 1972;
  - Initially promulgated in 1974;
  - The subject of major CAA Amendments in 1977;
  - Repromulgated in 1978;
  - The subject of a massive court remand in 1979;
  - Repromulgated again in 1980 with major changes; and
  - A primary focus for current efforts to amend the CAA again.

The uncertainty surrounding the future of PSD has made States reluctant to assume responsibility for it until they could see "what they were buying."

- o For this and other reasons, many Regions have not succeeded in delegating major portions of new source review, or in getting States to submit approvable SIP revisions. As a result, the practical and operational demands of getting permits out prevented some Regions from having the resources or the opportunity to develop coherent oversight.
- o In some Regions, organizational roles and responsibilities for oversight have not always been clear, and have hindered the development of a coordinated approach.

- o EPA has not established clear, objective measures of performance for State new source review programs. Consequently, Regional offices have had no assistance in focusing their oversight efforts either on selected types of sources (e.g., power plants) or selected key activities (e.g., applicability determinations). In the absence of such measures, EPA has criticized State programs for any deviation from the regulations governing new source review, no matter how small or insignificant. With a few exceptions, oversight "targeting" has been done only on an ad hoc basis. Moreover, the performance measures against which State programs are evaluated now are highly subjective and appear to depend excessively on personal relationships.

#### State Views On Present Oversight Practices

As noted earlier, some States have few concerns about present EPA oversight of new source reviews because they have seen little evidence that any has taken place. In such cases, the State generally assumes that their program is satisfactory in the absence of any indication to the contrary. Moreover, in cases where PSD has not been delegated, "oversight" at Regional offices has been secondary to the pressing need to get PSD source permits prepared and approved.

As delegation has progressed and more and more States have taken on full new source review responsibilities, however, oversight questions have come more and more to the forefront of EPA and State attention. Some Regions which moved quickly to delegate NSR programs have followed up on these delegations with their own oversight approaches. Our conversations with States which have experienced this kind of oversight revealed several State concerns with the quality of the oversight they now receive from EPA. However, it is important to note that all of these concerns do not apply in each State or to each individual case. State officials did cite some perceived benefits from past program audits. Moreover, the States recognize that some of their present concerns result from good faith efforts by the Regions to carry out national guidance and regulations from EPA Headquarters.

#### Concerns About Approach

- o Review By Inexperienced Staff -- State officials emphasized the importance of having experienced staff conduct oversight reviews. If the State has to spend a lot of time explaining their program to inexperienced reviewers, or if State staff know more than EPA staff about what EPA requirements are, then the State feels that they are wasting their time.

- o Lack of Continuity -- States prefer to be able to see the same reviewer for repeated oversight visits, rather than different ones each time. When this does not happen, States feel that they have to spend a lot of time repeating past debates.
- o Attitudes -- Although this is by no means universal, States reported that in a few cases they have felt that EPA "auditors" had an unnecessarily adversarial attitude toward the State program and were more interested in "finding mistakes" than in building the capability of the State to do better work in the future. In making their observations and judgments about State programs, EPA reviewers, in the States' view, should be sensitive to the "real world" political and resource constraints under which State agencies must operate. Virginia in particular felt that it was most important that the proper tone be established for an EPA "liaison visit" -- constructive, helpful, and supportive.

#### Concerns About Standards of Judgment

- o Evolving Criteria -- States are not sure about what criteria their program is being judged against, short of total conformance in every detail with all regulations and guidance governing the program. To the extent that they do have a sense of these criteria, it is rarely because EPA has spelled them out, but rather because of personal relationships with particular EPA reviewers which allow them to informally set ground rules together. All too often, States feel that they are not aware of what EPA's expectations are, but face instead an attitude of "I'll know you have a problem when I see it." South Carolina, for example, noted that EPA had criticized them for failing to indicate the distance of a source from the nearest Class I area in their permit files, but had never specified that this was an item against which the State's program was to be judged. This tendency was believed to result from EPA's "need" to find something to comment about to satisfy their professional pride.
- o EPA Expects "Zero Errors" -- State staff felt that EPA holds up, at least in principle, a standard of "zero errors" as the measure of a successful State program. "Zero errors" means not only that each State-issued permit is substantively identical to what it would have looked like if EPA had issued it, but also that the State followed the exact procedural steps which EPA would supposedly follow in issuing such a permit (e.g., detailed, explicit, case by case BACT analysis; use of EPA guideline models; case by case exemption from pre-application monitoring requirements,

accumulation of de minimis emission changes). States noted that "short cuts" on some permits result from resource limitations and attempts by the State to follow the "letter of the law" for complex sources. Moreover, State officials are well aware that EPA does not have the resources itself to be able to do the kind of review and documentation on individual new source permits that EPA appears to expect the States to perform.

States feel that some differences between what they do and what EPA would do -- and in fact some outright errors by States -- are inevitable in a program of the magnitude and complexity of new source review. At present, however, States feel EPA assumes that a problem with a single permit is endemic to the entire State program, and that EPA should do additional checks to see whether or not this is in fact the case. They believe that EPA must be prepared to judge among State "errors" that are inadvertent, minor, and not worth further attention (e.g., failure to fully document routine decisions on common sources); errors that are so major that they threaten the program's integrity (e.g., will cause NAAQS violations); and errors which reflect fundamental flaws in the State's conduct of new source review. Such a perspective would make EPA "permit audits" a part of an overall review of the State program -- a tool for identifying needs for program improvements rather than a means of attacking minute discrepancies in individual permits.

- o Wrong Emphasis By EPA -- States commented on the apparent preoccupation of EPA with oversight of PSD permits and the relative neglect of permits in non-attainment areas. They questioned whether this focus was appropriate in light of the relative environmental effects of sources in non-attainment areas.

Texas raised a further concern about the shifts in emphasis to which EPA was subject. They noted that EPA seemed at times to have a "project of the year" approach, and felt that this resulted from attempts by Region VI to respond to "constantly changing priorities and guidance from EPA Headquarters."

Finally, several States felt that EPA oversight of new source review should focus primarily on the appropriateness and adequacy of the control technology required of new and modified sources in both attainment and non-attainment areas. At present, however, they feel that EPA places too much emphasis on the review of modeling methods and results. According to the States, modeling requires the use of considerable judgment, and should not be a subject for EPA "second-guessing."

### Concerns About Consequences

- o No Sense of Priority -- While in practice EPA may regard certain aspects of new source review as "more critical" than others, this is sometimes not reflected in either EPA guidance or comments in EPA audits. These comments may not distinguish between isolated errors in particular cases, and systematic flaws in a State's new source review program. Consequently, comments ranging from improper LAER determinations to lack of a specific procedure to notify PSD sources that their applications were complete (which, the audit noted, was done by the State as "a matter of course") appear to receive equal weight in audit reports. States feel that EPA needs to be explicit in specifying aspects of new source review it considers to be most critical.
- o Inappropriate EPA Follow-Up -- States expressed concern that when EPA audits uncover problems, EPA's reaction is to refer the cases for enforcement action rather than first raise the issue with the State. This sometimes has resulted in EPA enforcement on the heels of a similar action by the State. States feel that EPA enforcement against a source whose actions have been approved by the State, or where the State has already taken corrective action, undercuts the State's credibility and encourages sources to deal directly with EPA (rather than the State) to get "real" answers to their questions.

States also objected to the timing of some of EPA's actions. The most common complaint was that EPA on occasion will comment on a proposed new source permit action after the close of the State's public comment period. This places the State in the awkward position of having to respond to EPA's comments separately from everyone else's, and has the effect of 1) causing delays in the issuing of permits, and 2) preventing EPA's comments from being aired in a public forum. The first of these effects is particularly onerous to States because of the importance they and industry attach to speed in processing new source permits.

PART II: EPA IS NOT DELIVERING WHERE WE HAVE A COMPARATIVE ADVANTAGE

In our site visits, State officials identified four roles where EPA has a "comparative advantage" which it should use to support State operating programs. States felt, however, that EPA is not now making the best use of its unique role in the areas of:

- 1) Improving Levels Of Pollution Control
- 2) Advancing Air Quality Modeling
- 3) Making Decisions on Policy Questions
- 4) Training Of State Staff

1) Improving Levels of Pollution Control

There are two ways in which EPA now fosters improvements in the level of pollution control. The first is the promulgation of new source performance standards (NSPS). The second is the provision of technical support for and the dissemination of information about new control techniques for use in State permit actions. States supported both types of EPA efforts but were critical of some aspects of how EPA is doing them now.

New Source Performance Standards -- State air pollution control officials unanimously and almost unequivocally endorse the development of NSPS for several reasons.

- o NSPS address interstate equity concerns by providing nationally uniform minimum standards which sources must meet everywhere.
- o NSPS result in real emissions reductions, as opposed to other parts of new source review which some States regard as "paper exercises."
- o The development documents which accompany proposed NSPS are good sources of technical information which States can use in doing reviews of similar sources.
- o NSPS give clear signals about what levels of control will meet EPA's expectations.
- o NSPS represent a clear baseline which EPA can use to measure State performance.
- o Though NSPS create pressure on States not to go beyond them, States agree that total emissions loadings on balance are less with NSPS than they would be without them.

State officials would like EPA to move faster in issuing NSPS for more categories of sources--particularly industrial boilers. Texas also criticized the scope of some existing NSPS--specifically the failure of the NSPS for fluid catalytic cracking units at refineries to contain an emission limit for SO<sub>2</sub>.

Technical Support for New Control Technology -- States have attempted to use EPA as a source of technical expertise in evaluating applications for sources unfamiliar to State staff. The results of these attempts have been mixed; in some cases EPA has provided useful information, while other times the States have not felt that their needs were met. There has been general agreement, however, that EPA ought to perform this technical support function.

Just what this function should include is less clear. States have different needs, expertise, and capabilities; a source which is unusual and unfamiliar in one State can be relatively routine in another. How EPA can best encourage the transfer of expertise among States when it is available, provide expertise for sources (e.g., synthetic fuel plants) which are new to all States, or otherwise support States in this area needs further study.

At present, States seeking technical support from EPA turn to either the staff of the Emissions Standards and Engineering Division (ESED) or to the BACT Clearinghouse. We found that States were familiar with the technical expertise available in ESED on a given industry or control technique, and heard reports of where this expertise had been helpful. However, limits to its usefulness were also noted.

- o ESED expertise is tied to areas of NSPS development. It is more difficult to find an "expert" on a source which is not subject to or a pending candidate for NSPS.
- o EPA staff are unwilling to offer technical advice or judgments on types of control strategies or equipment if decisions about their value are "in process" within EPA. This is particularly frustrating when a State is trying to get an independent evaluation of the efficiency claims made by manufacturers of control equipment.

BACT Clearinghouse -- The other EPA source of technical information available to States is that contained in the "BACT Clearinghouse." However, States did not feel that the present Clearinghouse is meeting their needs.

- o Most determinations in the Clearinghouse are for NSPS sources, while the greatest State need for information is for non-NSPS sources -- including minors.
- o States and EPA Regions regard the reporting which the Clearinghouse requires as burdensome and they generally do not do it. Moreover, a disincentive to report strong determinations exists because States do not want to be labeled as "too tough on industry."
- o The present Clearinghouse document cannot be kept current, and getting a response to requests for more information is time-consuming.
- o The Clearinghouse contains only "bare-bones" information on source types, emissions limits, and control equipment. More detailed information is needed to be useful for comparison purposes in detailed engineering review. Follow up phone calls to State or industry staff involved in the decision may prove to be so burdensome that it would be a decided disincentive next time around.

State Suggestions For Improvement -- State officials suggested several steps which EPA could take to improve its activities in stimulating advances in pollution control and transferring this information among States.

- o Texas suggested the establishment of an EPA award to facilities which adopted and used exemplary control systems. This would represent "positive feedback" from EPA and differ from the adversarial relationship which so often characterizes EPA - industry relations. States could nominate candidates for such an award.
- o Ohio and Virginia would like direct computer access to a "BACT Clearinghouse" data bank. This would enable the State to get quick, up-to-date information on determinations for particular source categories.
- o Virginia suggested that Clearinghouse determinations include a phone number of a State reviewer who could be contacted for further information. Texas expressed concern, however, that such requests would create an excessive burden on reviewers. Michigan noted that if an industry contact number would be used, it would be a constant source of irritation to the facility, especially if they came to regret having accepted a relatively low emissions limit.

- o Texas was most interested in information on control approaches which could transfer among industries -- especially within the chemical industry.
- o Texas and Michigan suggested that EPA identify advances in pollution control and incorporate them in the Clearinghouse by writing up case studies of the determination which would contain sufficient detail that they could stand on their own.
- o Michigan suggested that EPA identify candidates for the Clearinghouse by reviewing the relatively few major source determinations it makes each year when these are submitted to the Regional office.

## 2) Advancing Air Quality Modeling

A second area in which EPA has a potentially fruitful comparative advantage is in advancing the accuracy and utility of models which project the ambient impact of source emissions. EPA's technical expertise in this area is acknowledged, and most of the models which are described in the Guideline on Air Quality Models were developed either by EPA staff or with EPA support.

However, States -- particularly South Carolina, Texas, and Michigan -- were critical of EPA's modeling efforts. These criticisms were of two types.

EPA Makes It Difficult to Get Alternative Models Approved -- The Guideline states that the EPA Regional Administrator may approve the use of alternatives to the models specified in the Guideline. However, South Carolina and Michigan indicated that the requirements to gain acceptance by EPA of such alternatives were so "ominous" in practice as to effectively inhibit the development of "better" models in the interest of maintaining "consistent" ones. Texas officials commented along the same lines that while they could gain approval of their alternative models from the Regional office, the State felt that their models would not be "fully" sanctioned until they had also been approved by OAQPS. Texas had delayed accepting PSD delegation until they received assurances from OAQPS that their models were approvable.

EPA Discourages User-Oriented Models -- A chief reason cited by South Carolina, Texas, and Michigan for wanting to use alternative models was that each State felt their models were more "user-oriented," particularly in that they are considerably cheaper to run without sacrificing accuracy. These States generally felt that EPA's models had been developed from a research perspective and had not been reviewed from a standpoint of trying to improve the cost-effectiveness of their

repetitive use by States. They would like EPA assistance, which they do not feel they are getting now, in making better use of model improvements which can reduce costs to States and industry.

### State Suggestions for Improvements

- o South Carolina has modified the PTMAX model to accept data in CRSTER format, which reduces the time required to prepare data for a model run from 45 minutes to 20 minutes. This also substantially reduces the difficulty of shifting from one model to another.

Michigan also commented on the incompatibility of different models and suggested additional work to make inputs and formats more consistent.

- o All States were critical of the requirement that five years of meteorological data be used in modeling, and felt that this requirement "tripled costs" (South Carolina), yet made any difference at all in "less than 20% of the cases" (Ohio).

Michigan has developed a "persistence program which screens five years of meteorological data and draws out only those conditions which are limiting for a particular type of source -- with savings which the State characterized as "a factor of 100."

- o EPA should pursue a "centers of excellence" idea in developing, approving and disseminating better alternative models.
- o EPA Regions should convene regular meetings of modelers in their States to transfer information about advances and problems.

### 3) Decisions on Policy Guidance

Georgia, Texas, and Michigan all expressed frustration about the length of time it took to get guidance on policy questions from EPA. These States indicated that they found it difficult to get someone in EPA who would take the responsibility for making a decision. Rather than do so, they found that Regional offices tended to refer all such decisions to Headquarters, which then treated each case as a new occasion for needing national policy guidance. Moreover, States noted that organizational conflicts within EPA Regional offices (e.g., between Air Programs Branches, Air Enforcement Branches, and Regional Counsels) could also delay authoritative rulings by forcing even minor issues up to the Regional Administrator for resolution. Georgia officials in particular felt that these

problems caused the "decentralization" of EPA to work much less effectively than it otherwise might, and created an obstacle to good State-EPA relations.

4) Training of State Staff

Several States requested that EPA continue and expand its program of training State staff in areas related to new source review -- and were critical of recent cutbacks which the Agency has made in this area. Recent EPA efforts to 1) provide workshops explaining the most recent revision of the PSD regulations, and 2) conduct training for State enforcement staff were praised by State officials. Budget restrictions and constraints on travel by State employees were cited as the two biggest drawbacks to further State participation in EPA training.

### PART III: OPTIONS FOR FUTURE OVERSIGHT

#### THE GOALS OF NEW SOURCE REVIEW

Both the overall purposes of the Clean Air Act as specified in Section 101 and the purposes specified in Part C for prevention of significant deterioration establish general goals regarding the review of new or modified sources of air pollution. As stated in the Act, these general goals include:

- o Protecting public health and welfare from the adverse effects of air pollution;
- o Ensuring that economic growth occurs in a manner consistent with the clean up of dirty air areas and the preservation of existing clean air resources;
- o Protecting air quality in special areas, such as national parks and wilderness areas; and
- o Ensuring that any decision to permit increased air pollution is made only after careful evaluation by all concerned parties of the consequences of such a decision.

The actual implementation of programs to meet these goals is not left solely to EPA's discretion. The Clean Air Act imposes a number of more specific requirements which individual major new or modified sources must meet, and charges EPA or an implementing State or local agency with the responsibility of ensuring that such sources in fact comply with the Act's provisions. The most basic requirement is that any proposed "major" new or modified source of air pollution must obtain a permit to construct from EPA or a State/local agency. The Clean Air Act spells out certain terms which the source must meet to get this permit, terms which may require a source to:

- o Apply the best available control technology (BACT) or achieve the lowest achievable emissions rate (LAER), depending on location;
- o Analyze its projected impact on the air quality of the surrounding area to demonstrate that it will  
1) in non-attainment areas, provide a net air quality benefit, or 2) in attainment areas, not violate an applicable ambient air quality standard or increment of deterioration -- an analysis which may require monitoring and modeling;

- o Obtain "offsetting" emissions reductions to compensate for any increases;
- o Meet explicit standards which have been specified by EPA for selected categories of new sources (NSPS) or sources of certain hazardous pollutants (NESHAP); and
- o Meet other procedural requirements relating to public participation, compliance by other sources with the same owner as the prospective new source or modification, or implementation of the SIP in the area where the source proposes to locate.

The applicability of each of these requirements varies in the statute, depending upon the type of source involved, its size, its location, and whether it is a new source or a modification. EPA or the implementing State or local agency is responsible for determining which of these requirements apply in individual cases.

The Clean Air Act is silent on any goal for the review of proposed new or modified "non-major" sources of air pollution, except to the extent that such sources pose a potential threat to the attainment and maintenance of any National Ambient Air Quality Standard or increment of deterioration. EPA has, however, specified (40 CFR 51.18) that State Implementation Plans shall contain procedures which enable the State or a local agency to determine whether or not any new/modified source will interfere with the attainment and maintenance of national standards.

#### EPA Goals and Implementing Regulations

While the Clean Air Act specifies many requirements for new source review, the program has had to spell out considerably more detail in the form of implementing regulations. These: 1) specify the precise definitions of terms used in the Act (e.g., a "major stationary source"); and 2) describe the procedures which EPA or State/local agencies must follow to approve a permit which allows a major new or modified source to construct.

In practice, EPA has used compliance with these regulations as its operational "goal" for new source review. Yet defining its "goal" in terms of simple compliance with the details of the implementing regulations has created real problems for EPA and the States because the regulations have been in almost constant turmoil due to court suits. From the States' perspective, every time a new judgment is rendered, EPA goes through wild swings from one extreme to another on such fundamental questions as which sources and what pollutants are subject to Federal new source review requirements. States feel that EPA has exhibited very little consistency in its goals for NSR except that it has tried in a legalistic way to react to the perceived instructions of the latest court suit.

### AN ALTERNATIVE LOOK AT OVERSIGHT GOALS

The troubled history of the Air new source review program in the statute and in the courts has produced an overwhelming tendency within EPA to look at the program's regulations as equal to its goals. By this standard, only a State program which did exactly what the regulations required in exactly the way EPA would have done it could satisfy the Agency's own goals for new source review. Even where EPA has wanted to give State and local agencies more flexibility in implementing the provisions of the Act, the Agency has felt constrained by legal interpretations which raised the spectre of even more court suits if EPA or States deviated in their requirements from the precise specifications of the regulations. The result has been mutual frustration: EPA feels that its hands are tied in imposing requirements, and States feel that EPA is unnecessarily rigid in specifying requirements for their programs.

Legislative changes to increase the flexibility of State governments in such areas as modeling and monitoring requirements, applicability for modifications, allowable increments of deterioration, and public participation requirements offer the best way out of this dilemma. Even if legislative change is forthcoming, however, issues regarding what parts of new source review should be nationally uniform, and which should be within the sole purview of State/local agency judgment, will continue to be resolved as part of EPA's future oversight efforts.

A later section of this paper discusses, in detail, measures of performance which we believe are appropriate for EPA oversight of new source review, based on our discussions with State and EPA officials. It is important first, however, to put these measures in context by providing a set of general national goals which we believe should guide future oversight of new source review by EPA under either the present or proposed revisions to the statute.

The following discussion touches on three such goals as candidates. They are not the only possible goals, but each has been stated at one time or another as a "purpose" of new source review and can serve as examples of the type of focus which EPA might want to have in overseeing new source review. Each goal is related, but they differ in concept and emphasis. EPA programs which support these goals are mentioned.

#### Goal #1: Protecting Environmental Equity Among the States

The first goal for EPA in overseeing new source reviews would be to promote equity among the States and protect the basic integrity of State air pollution control programs. EPA actions in pursuit of this goal involve the setting of minimum national standards of new source pollution control (e.g., NSPS/NESHAPS), to minimize the extent to which siting decisions for new sources are influenced by competition among potential locations in loosening pollution control requirements, and the review of State programs to make sure that these minimum standards are being applied.

Goal #2: Reducing the Total Tonnage of New Pollution Being Emitted Into the Atmosphere

Emissions from new (since 1970) sources of air pollution are still a relatively small percentage of emissions from existing sources in most parts of the country, with the exception of areas which have experienced rapid growth only in the last 20 years. However, one of the key assumptions of air pollution control has been that air quality will improve, over time, as a part of routine industrial turnover in which older "polluting" equipment wears out and is replaced by new equipment which is either inherently less polluting or for which better emissions controls are designed in prior to construction. Moreover, an emphasis on putting the "best" new pollution control on both "replacement" sources and "growth" sources yields two additional benefits -- a reduction in emissions into the atmosphere which are transported over long distances with uncertain ultimate effects; and the protection of areas which are currently cleaner than the national ambient standards. EPA actions in pursuit of this goal focus on efforts to stimulate the transfer of knowledge about and use of new methods of pollution control, including methods which promise greater reliability and long-term compliance with emissions standards.

Goal #3: Limiting Air Quality Deterioration

A third goal for EPA -- limiting the deterioration of air quality -- is strongly linked to the second goal. Existing evidence appears to indicate that in most cases, air quality deterioration can be limited by the installation and use of good pollution control technology on new and modified sources. However, in selected cases (e.g., extremely hazardous pollutants, areas of special national significance such as national parks, or areas where a high concentration of new and existing sources threatens the national ambient standards), there may be an additional concern that the source will need to take special measures to protect existing air quality. EPA's actions in pursuit of this goal include the provision and/or dissemination of improved air quality models, and the review of permit applications or determinations which appear to affect an area of special significance or threaten the attainment and maintenance of an ambient standard.

Opportunities and Limits of Goal-Oriented Oversight

An oversight approach which focuses on goals rather than on the specifics of implementing regulations seems most appropriate for a program such as new source review where issues frequently turn on the judgments made by agency reviews and officials. Moreover, it calls EPA attention to the fundamental question of whether the program under review was succeeding in carrying out its overall mandate, rather than whether every action on an individual permit had been taken exactly as EPA would have done. Finally, the goals listed above, or alternatives selected by top management, provide a context for EPA's assessment of a State/local program which goes beyond

the procedural requirements of the regulations and focuses on the real environmental benefits which were being achieved by new source review.

However, EPA cannot move directly to a goal oriented oversight program without specifying several other items upon which such a program would be based. Different "generic philosophies" exist about oversight and EPA's role, and the choice of a philosophy will affect the mechanisms which EPA establishes to implement oversight. Moreover, any oversight should be tailored to some extent to differences in individual State abilities to meet the goals of new source review. Finally, even if philosophies are agreed upon and some consensus can be achieved about the "need" of particular State programs for oversight, difficult questions remain to be resolved about precisely how EPA would carry out its oversight role, and what measures EPA could use in assessing how well States are meeting these goals.

These topics are the subject of the following sections.

#### OVERSIGHT PHILOSOPHIES: HOW MUCH IS ENOUGH?

There is disagreement about the overall level of oversight which State air pollution control agencies "need." There is a general consensus on the importance of some oversight for the purpose of ensuring environmental equity among the States, and the need for EPA to continue some of its basic standard-setting, technology transfer, and training functions. However, EPA actions which go beyond these involve different values (e.g., willingness to live with uncertainty or less than "zero errors") and require policy direction and choices from top management.

In brief, the prevailing perspectives on oversight may be summarized as follows.

"States Require Considerable Oversight" -- Proponents of the view that State new source review programs need considerable oversight usually cite three support arguments. The first points to the Clean Air Act as establishing a "Federal mandate" for the protection of air quality as a resource. While this is held to be especially true for areas of special Federal concern -- national parks, or areas where air quality is worse than Federally-set standards -- proponents of the "considerable oversight" view feel that the very nature of air pollution requires active coordination and control by the Federal government, and feel that the Act supports this interpretation.

A second argument in support of the "considerable oversight" view points to limited State staff capabilities as another reason for EPA involvement. Low State salary scales and high turnover are cited as evidence which detracts, in this view, from the ability of States to follow the requirements which Clean Air Act contains. Perhaps more importantly, States are felt to have limited "political resources" as well, and to be more likely to be subject to undue political pressure than the Federal government is, particularly in bringing enforcement actions against recalcitrant sources.

A third contention on behalf of the "considerable oversight" philosophy is that the experience with air pollution control prior to 1970 shows that only a strong Federal involvement can bring about real progress in achieving air quality goals. The importance of State and local implementation is acknowledged, but active involvement by the Federal government is seen as the "backbone" which supports State and local efforts and has brought about real improvement in their quality over the past ten years.

"States Require Minimal Oversight" -- Proponents of a "minimal oversight" philosophy point to the Clean Air Act's injunction that air pollution control is "the primary responsibility of States and local governments" as a touchstone for an EPA role which is much less involved with day to day decisions. They generally agree that the magnitude of the pre-1970 problem required a strong Federal presence at that time. However, since 1970 significant improvements have occurred in most State programs, and many would argue that the more advanced States have staff who are as good or better than staff at EPA.

Two other arguments support the "minimal oversight" view. The proper Federal role is seen as being that of setting basic, minimum standards of performance, both for important parts of new source review (e.g., NSPS) and for State performance as a whole (though, as noted earlier, EPA has not done this). "Standard setting" is a function which the Federal government can do well, and which is efficient as compared to having 250 State and local agencies each doing original research on the same problem. However, the Federal government does not do a good job of implementation, which requires the adaptation of programs to local conditions in order to achieve specific objectives. It would also require the Federal government to employ many more staff than it now does. Federal involvement in implementation, it is argued, is an inefficient use of Federal, State, and local resources, and can produce counter-productive uncertainty, delay, and confusion about who is responsible for what.

Secondly, oversight beyond a "minimal" level inevitably gets into questions of judgment. Much of new source review is predicated on "judgment" about (for example) control technologies and air quality impacts. Experts can and often do disagree on these questions. Given the importance which judgments play in new source review, proponents of "minimal oversight" argue that it is appropriate for them to be made at the level of government which are closest to those who will actually be affected -- that is, the State and local level.

#### EPA THE "FRANCHISER": FOCUSING ON QUALITY

Past work on delegation in other EPA programs has suggested an alternative model for delegation and oversight which goes beyond the discussion of "how much or how little" oversight is needed. This has been referred to as the "Franchiser" model, because it suggests a relationship between EPA and State and local governments which is similar, though not identical, to the relationship between a franchiser and its franchises.

The key to the Franchiser model is a division of labor among levels of government, with each providing those services for which it is best suited. Where it differs most from present practices is that it requires EPA to consciously acknowledge that "success" for the Agency comes not from the direct conduct of activities (e.g., issuing permits), but rather from what State and local governments accomplish using tools and methods supplied by EPA. This means that EPA must spend more of its time and resources in identifying common problems which affect many State and local programs and which EPA can solve as a common problem rather than as one unique to each State and local agency. Some such problems, such as information transfer about new control technology and stimulating development of more "user-oriented" models, have already been identified.

A "Franchiser" EPA might not totally give up its role in the quality control of individual items if they were of sufficient importance to the national interest. PSD Class I areas or interstate issues might be one example of where such a residual Federal role might be appropriate. EPA's focus, however, would shift away from the review of individual actions and toward building the capability of State and local programs to handle these actions without EPA intervention. "Oversight" would then become one of a series of opportunities (others being targeted technical support or training of State staff) to do this, rather than an occasion for looking for ways to criticize the State program.

The shift to a Franchiser model of oversight will, in some cases, require a greater degree of trust among EPA and State and local agencies than has existed in the recent past. It will also require a willingness by EPA to allow some "mistakes" to occur as an inevitable part of learning. The benefits of such a shift, however, could be a national pollution control effort which is more effective because it better uses the particular skills and talents of each of the participants.

#### TAILORING OVERSIGHT: ADAPTING TO STATE NEEDS

The need for consistency in the results of new source review need not mean that "oversight" would mean the same thing at all times and in all places. In fact, there are good reasons why it should mean different things. State needs and capabilities differ, and whatever approach EPA takes to oversight should be flexible enough to respond appropriately to these differences.

In general, oversight should vary according to the size and technical competence of the State's new source review program, and according to the length of time during which the State has had full responsibility for the program's implementation. Some State programs now have capabilities in certain areas which stem from experience and are equal to those available to EPA's (e.g., in the area of modeling or control technology reviews for selected industries). It does not make much sense for EPA to

invest in overseeing State decisions in areas where State expertise matches that of EPA. Where EPA should apply its effort is in transferring the results of this expertise to other State and local agencies.

Similarly, EPA may find it necessary in the initial stages of (for example) PSD delegation to review a higher number of actions to ensure that the State agency fully understands the application of the rules of the program. (Note: most States will have less than 20 PSD actions each year under current rules, and even fewer if certain applicability provisions are changed). However, this intensive review would not ordinarily last long. After a specified period of time (e.g., a year or two), EPA's level of oversight would decline to a "maintenance" level in the absence of evidence that the State was failing to properly conduct the program.

#### MECHANISMS OF OVERSIGHT

Four oversight mechanisms are now in use by EPA:

- o Review of Routine State Submissions
- o Direct Involvement in State Permit Actions
- o Program Audits
- o Plant Audits

The following sections discuss the present use of each of these and suggest the conditions under which they would be most useful in the future.

#### Routine State Submissions: What Should EPA See?

EPA Regions vary in what they now see of state permit actions. Among the items EPA now sees are:

- lists of new source actions
  - applications received or
  - final permit actions
- selected permit applications
- draft public notices and draft permits
- final permits

Sometimes this information is submitted for major sources only, and sometimes for all new or modified sources. EPA has used methods ranging from grant agreements to informal letter requests to institute these requirements.

The regulatory or legislative bases for routine submissions include:

- o a requirement in 40 CFR 51.18 for States to submit all draft public notices and draft permits to EPA.

- o a requirement in §165(d) of the Clean Air Act for states to submit copies of permit applications for all major PSD sources and notice of all major actions related to processing the PSD permit application.

Because these requirements have been viewed as unrealistic or onerous by States and Regions alike, EPA Regions have negotiated different submissions on a State-by-State basis. However, there is no overall program logic or clearly established purpose for establishing these requirements. There is also no mechanism to re-evaluate the need for the submissions at regular intervals. Often a prior request is never rescinded even as new ones are substituted. Region V enforcement officials noted that routine submissions can drive the work of the Regional Office staff -- "if we get it we should be reviewing it."

Table III-1 contains our recommendations on when routine submissions can best satisfy the various information needs we identified. It is important to note that major sources constitute a very small percentage (10% or less) of State permit actions. We asked States for their comments on routine submissions during our site visits; these are summarized in Appendix 2.

As Table III-1 shows, the principal reasons why routine submissions might be useful to EPA are to provide a basis for active involvement in selective permit reviews, or to provide duplicate files in EPA's Regional office for enforcement purposes. Public notices for major source permits may be useful to alert EPA to permits of special concern and allow EPA to request more information of the State and comment within the State's public comment period. We believe it is questionable whether routine final permit submissions are of value to EPA. We also believe that the issue of whether EPA should have a complete record of SIP requirements goes beyond new source review and should be addressed in a wider context than new source permit submissions alone.

TABLE III-1  
ROUTINE SUBMISSIONS  
TO EPA

PURPOSE

- Identify potential sources requiring EPA permits/review
- Familiarizing EPA staff with State permit actions in preparation for the program audit
- Provide a basis for active involvement in selective permit reviews (i.e. public comment)

RECOMMENDATIONS

- Request list of candidates for EPA review only in non-delegated programs
- List of applications received is preferable to list of final permit actions, but EPA should require what is easiest for the State to compile.
- This can be achieved through receipt of public notice/draft permits or final permits if there are other reasons to receive them. If not, we recommend reliance on informal contacts.
- Notification of EPA for early opportunity to comment on state permit action requires draft permit/public notice.
- We suggest that public notice/draft permits be reviewed selectively:
  - for all majors or perhaps a small portion of minors where the State has evidenced problems with its NSR program and more frequent audits are not feasible; or
  - only for selected types of situations where we decide EPA involvement may be required. (See section on when EPA should get directly involved).
- Permit applications or further technical support analysis should only be requested in highly selective cases where EPA has decided it must get actively involved. No routine submission should be required.

- Maintain a complete record of applicable SIP requirements
- Support enforcement inspections with duplicate final permit files in Regional office
- Identify exemplary permit limits for the BACT Clearinghouse
- Identify and correct erroneously issued permits
- The need for EPA to have a complete record of SIP requirements and how this can best be achieved should be reviewed more comprehensively than just trying to obtain copies of final NSR permits. Such a review should include what to do about operating permits and SIPs in general.
- Because final permits are no substitute for review of complete files and a visit to State offices prior to inspection we do not recommend submissions for this purpose.
- This can be accomplished during a program audit.
- This can be accomplished during a program audit.

Direct Involvement In State Permit Actions

EPA now makes very few if any comments on State permitting actions. The bulk of EPA's interactions with States on new source reviews for specific sources have been on cases where a source had to get both a State permit to construct and a PSD permit from EPA. The States we visited which had a PSD SIP or full PSD delegation reported a substantial decline in the level of EPA involvement with the State on specific permit actions.

We asked States when they believed EPA should get directly involved in State permit actions, both in general and in cases involving:

- a PSD Class I area
- a hazardous waste facility (e.g., incinerator)
- potential interstate impacts
- environmental impact statements

Their responses are summarized in Appendix 3.

Table III-2 lists our recommendations concerning direct EPA involvement in permit actions. In general, we recognize that in certain highly controversial cases, EPA involvement is almost inevitable. However, we recommend that EPA issue a formal comment on a State permit action only in unusual instances when that comment will make a significant difference in the outcome of the permit. These comments should be made within the period allowed by the State for public comment, and only after prior efforts to resolve the matter with the State agency. If comments will not make a difference in the permit at issue but could affect future actions, EPA should withhold formal comment but take the matter up with the State at the next State program audit. EPA involvement in all other permit actions should be at the request of the State agency.

TABLE III-2

DIRECT INVOLVEMENT IN STATE  
PERMIT ACTIONS

<u>Type of Case</u>	<u>Recommended Comment Procedure</u>
General Cases	Record comments (if any) for discussion during annual program audits
Controversial Cases	<p>All EPA comments should be made within the State's public comment period. EPA should issue comments only when the comment will:</p> <ul style="list-style-type: none"> <li>o Make a difference in the outcome (e.g., propose a change in the source's emissions limit to prevent NAAQS violation)</li> <li>o Prevent the source from violating a regulation or statute</li> <li>o Rectify a significant technical error (e.g., failure to meet an applicable NSPS).</li> </ul> <p>EPA should give advance notice to the State of pending comments as a professional courtesy.</p>
Cases of Potential Interstate Impacts	EPA should get involved only at the request of either party to a dispute, and only after good faith efforts by both parties to resolve it.
Permitting of Hazardous Waste Facilities	EPA should ensure that if the State has permitting authority under both air new source review and RCRA programs, there is a coordinated procedure to issue any necessary permits and resolve disputes. If EPA retains authority under RCRA, the Agency should treat the action as a controversial case.

Cases with Potential  
Class I Area Impacts

EPA should not routinely get involved in these cases. When significant controversy or a request by a Federal Land Manager triggers involvement, treat as a controversial case.

EPA should act as an arbiter between a State and a Federal Land Manager only if requested to do so by either party.

### Program Audits

Three Regions now conduct program audits of one sort or another, and others are planning to as a part of their oversight of PSD delegation. Region II staff review a percentage of State new source permits each year, write up a summary of each permit reviewed, and take up any problems with the State reviewing engineer. Issues of general concern which these permit audits reveal are discussed by the Region in quarterly meetings with State staff.

Region IV has sponsored contractor audits of two of its State programs. In both cases the contractor, TRW, went to the State office, spent time going through the State files, and prepared a draft written report outlining problems with the State program. Both reports were critical of the State programs involved. The Region felt the contractor audits had been useful in identifying problems and prompting management changes in the agencies concerned.

Region V has the most extensive and formal audit program of any Region. They use an "audit team" composed of a senior team leader and staff with various specialties, including modeling. The team visits the State office (or district/local offices in decentralized States) for a two day visit, during which time they review selected permit files and talk with State staff. At the conclusion of the visit, they hold an exit interview with the State program manager, then prepare a written report in the form of a letter to the State which contains findings and recommendations. The recommendations are divided between those which the Region feels the State must implement to satisfy a regulatory or statutory requirement, and those which the Region believes would be good program practice but are not required.

Region V is now expanding its audits to cover air enforcement and monitoring activities as well as those related to new source review.

State Reactions to Program Audits -- All of the States we visited endorsed the program audit in some form as an oversight mechanism. As the States see it, this audit:

- o Would occur annually or semi-annually;
- o Would replace day to day EPA involvement in State permit actions;
- o Would include:
  - Discussions with State officials and staff on the program's progress; and

- The review by EPA staff of a selected number of State permit files at the State office. As noted below, This might include the review of some minor source permits for applicability purposes. States would like to see some "randomness" in the selection of these permits to ensure that EPA does not just look at the "best" permits.

State views on program audits are summarized in Appendix 4.

All States stressed the importance of the approach which EPA uses in such an audit. States feel that EPA's approach:

- o Should be cooperative and not adversarial in nature;
- o Should test whether the State is, in practice, following its own rules;
- o Should use, as auditors, staff who are familiar with the State program;
- o Should vary from State to State, depending on the different needs of each program; and
- o Should forego excessive interest in "process" and focus instead on "results".

States would like EPA to spell out just what an "auditable" permit file should contain, though one State specifically commented that such specifications should not take the form of regulations. They suggested that an EPA request that certain items be included in permit files, without rigidly specifying an exact management system, would be saleable and was probably necessary if an audit system was to work. Some of the States we visited already have permit filing systems in place which appear workable, and EPA's role would be to stimulate information transfer between States with good systems and States which need them.

Finally, State officials felt that the State must have the first opportunity to correct any deficiencies which program audits may reveal. Unilateral EPA enforcement action based on audit findings would destroy the cooperative tone which States feel should be the backdrop for program audits.

Permit vs. Program Audits -- The chief purpose of permit audits is not for EPA to "hunt" for errors in specific permits, but to identify problems which the State is having in the conduct of its reviews. To have useful outcomes result from this exercise requires communication between EPA and the State -- and preferably directly between the EPA staff person reviewing the permit and the State staff person who prepared it. For this reason, we recommend that any EPA review of State permits occur at the State office, where both State reviewers and complete state permit

files are readily available. This has the added advantage of encouraging both EPA and the State to clarify, explicitly and face to face, what their mutual expectations are for an "adequate" permit review. It also placed the "permit audit" in its proper context as part of the continuing discussions between EPA and the State on how the State's program can be improved.

There is not a simple answer to the question of "how many" permits EPA should review in such an audit. Most States do not review enough "major" sources per year for a truly "random" sample to be taken from these sources. While some high growth States may process up to fifty such permits each year, this level of activity is highly unusual. Twenty to thirty major source permits per year is a more common level, even in major industrial States. Moreover, differences in the types of sources involved (e.g., power plants versus refineries) mean that the skills needed for review may be vastly different and that the sample "universe" is far from uniform.

Generally, therefore, a percentage "random" sample of major source permits will not yield particularly useful information about a State program. In the absence of a simple "sample" approach, the most important factor which determines which and how many final permits get reviewed should be discussions which EPA has in advance with the State agency. EPA, in these discussions, may use several factors as a basis for estimating how many and which permits it would like to see, such as:

- how long the State has been responsible for major source review under offset or PSD provisions
- how well the State performed in its last audit
- industries which are unfamiliar to the State or about which the State has expressed concern to EPA
- types of industry within the State which are experiencing rapid growth
- selected source categories in which EPA may be trying to improve State capabilities nationwide.

Review of Minor Source Permits -- We examined the question of whether EPA should review any minor source permits for

- applicability concerns
- local ambient impacts
- toxic or other hazardous pollutants
- general SIP adequacy

States generally endorsed some review of minor source permits to help ensure the uniform application of Federal requirements about the kind of review to which new sources should be subject. A look at selected "borderline" minor permits might be an appropriate way to determine whether, in these instances, the State is applying its rules properly. States also expressed the desire for additional technical support in making control technology determinations for selected categories of new or unfamiliar minor sources (e.g., an alcohol fuels plant).

State permit reviews for new minor sources are generally routine and repetitive in nature. Most States have established standard operating procedures to handle such reviews, by establishing "standard" permits for small sources (e.g., Texas) and by developing control efficiency curves to establish allowable emissions levels for small sources (e.g., Virginia for small boilers). Ideally, any necessary EPA oversight of minor source permitting activities would occur in the context of a general review of the adequacy of a State's Implementation Plan to achieve the ambient standards. In practice, however, it appears that EPA has conducted little implementation review of SIP's (as opposed to "paper reviews" of State submissions). Whether there is a need for such a review, and if so how it should be conducted, is an issue which goes beyond new source review and would require further study.

Table III-3 summarizes our recommendations regarding program audits.

TABLE III-3  
AUDITS OF STATE PROGRAMS

<u>ISSUE</u>	<u>Recommendations</u>
o Who conducts?	o Prefer Regional office staff to contractors. Staff should be familiar with the State program in general, but have a variety of skills (e.g., a modeler, an enforcement staff, and design engineer). A "team of experts" approach is desirable; another possibility is the inclusion of staff from other States on the audit team.
o How should audit be conducted?	o Prior contact with State staff to arrange time. o Prefer permit review during site visit to State office to desk review of permits at Regional office. o Include discussions with State staff during visit and an exit interview with program manager o Prepare formal written report of findings; send in draft to State and get comments. Formal comments should include an outline of the criteria used to judge "adequacy".
o How should permits be selected for review?	o The criteria for permit selection should be <u>discussed with the State in advance</u> . Possible criteria include: <ul style="list-style-type: none"> <li>- Selected sample of a minimum number of majors</li> <li>- Controversial cases, (e.g., Class I, interstate, hazardous air pollutants)</li> <li>- Special focus on selected source categories of national concern</li> </ul>

- Permits of special Regional concern (e.g., energy facilities; high-growth industries)
- Minor source permits with applicability questions
- o How often should audits be conducted?
  - o Negotiate with State; may be as often as quarterly or as seldom as biannually, depending upon State preference and program quality
- o What should the consequences of a permit audit be?
  - o The State should be given the final formal audit report and a chance to act on its recommendations before any EPA action is taken
  - o Problems with specific permits should be distinguished from overall concerns with the program.
  - o If problems with a specific permit are not satisfactorily resolved, the State should be formally notified of any action EPA intends to take.
  - o Every effort should be made to work out a joint course of action with the State and offer EPA assistance to State action in preference to direct EPA action.
- o What should the audit focus on?
  - o The audit's focus should ideally be on the overall conduct of the State's program -- the general level and quality of permit reviews, the emphasis given by State program managers to environmentally sound new source reviews, and the integration of new source review with other parts (e.g. compliance) of a State's program.
  - o EPA may target selected industrial categories from year to year for a national effort to expand State capabilities.

- o In a given year, by agreement with the State, specific areas may be targeted for special attention:
  - Modeling
  - Enforceability of Conditions
  - Public Participation.
- o A focus on minor source permitting as part of a general review of SIP adequacy is a question for further study.

### Plant Audits

A few States commented on the possibility of uses EPA plant inspections as an "audit" tool for new source review. In such a "plant audit," EPA would check to see whether the State's permit review had accurately characterized the source's emissions and control strategy, and whether the facility was operating in conformance with permit specifications.

Judging by our interviews, present EPA plant inspection practices are a source of controversy. The biggest items of contention were:

- o Use of contractors for inspections (Michigan, Virginia, Ohio).
- o Poor communications with EPA about which sources EPA would inspect (Virginia, South Carolina, Texas, Michigan).
- o Overlapping State-EPA inspections (Virginia, Texas).
- o Failure to receive copies of EPA inspection reports (Virginia, South Carolina, Michigan).
- o Delay in getting reports up the line at EPA for action (Texas).
- o Arbitrary selection of 10% of plants for audits (South Carolina)
- o Lack of inspector expertise (Virginia, South Carolina).
- o Objection to the philosophy of "independent" EPA inspections (Michigan, Ohio, Virginia).

South Carolina, Ohio, Virginia, and Michigan all expressed an interest in using EPA inspections as a vehicle for training their staff to do better inspections on their own, with Michigan comparing a proper relationship to that of a salesman and a sales supervisor. Only Texas indicated that they preferred not to accompany EPA inspectors on site visits.

## OBJECTIVES AND MEASURES

The key to the use of any of the oversight approaches discussed above is the establishment of agreed-upon measures of program performance. Without such measures, States will have no idea of what standards they are supposed to meet in implementing new source review other than the impossible one of doing things just as EPA would theoretically do them. The absence of such measures has contributed to EPA's treatment of the program's regulations as equal to its goals. It has fostered reluctance by the States to accept delegation because they do not know what standards they must meet, and it has fostered reluctance by EPA to delegate because we have no criteria for comparing State performance or judging what a successful State program is.

Suggested objectives and performance measures are specified below. The standards against which these measures of performance apply will, to some extent have to be negotiated on a State by State basis. While EPA is in the position of "national manager" for new source review, the very fact of federalism means that the manager-supervisor relationship can never be a true characterization of EPA-State relations. We have earlier suggested a "Franchiser" as a model for EPA's role; this model applies here with particular force. EPA cannot and should not try to dictate national standards of performance except in selected areas covered by the Clean Air Act (e.g., NAAQS or NSPS). The Agency can, however, work with States in partnership to improve their joint performance against measures of effectiveness to which both can agree.

### Possible Measures

- 1) Can the basis for State decisions on major source permits be determined?
  - o Example #1: What are BACT determinations based on?
    - NSPS
    - CTG
    - AP-42
    - Stack tests at similar sources
    - State SIP
    - Vendor-supplied data or applicant data
    - Judgment of State engineer

- o Example #2: Is air quality analysis being done properly?
  - Model selection justified (Guideline or Alternative)
  - Assumptions Justified (e.g., urban vs. rural model; single vs. multi-source model).
- o Example #3: Have the proper rules been applied to the source?
  - Is a checklist of applicability considerations routinely completed for each source?

Types of decisions for which no justification is consistently provided may lead to further evaluation of that element of a State's program and recommendations for changes (e.g., if a State relies exclusively on applicant data and fails to perform any independent engineering evaluation of a source applications). However, EPA needs to support information transfer among States, to identify good systems now in use for recording such decisions and make these available to other States.

- 2) Does the State have adequate hardware and software to perform permit reviews?
  - o Example: Air Quality Analysis
    - Does the State have the most up-to-date EPA Guideline models?
    - Does the State have programmable calculators or computer capability needed to do modeling
    - Does the State have screening model packages which would allow them to check source-submitted modeling
- 3) Does the State have adequate and qualified staff to perform:
  - o Engineering review (for sources likely to locate in State)
  - o Air Quality Modeling

Is there any provision for training of new staff or existing staff in new areas?
- 4) Does the State have clear ground rules to determine:
  - o Which sources will be modeled or must model;
  - o When an application is considered "complete";
  - o What regulations apply to which sources;

- o How exemption requests (if any) will be handled;
- o How "special cases" requiring coordination with EPA or other State agencies (e.g., RCRA hazardous waste incinerators) will be handled.

5) Are permit limits enforceable?

a) Legally\*

- o Identifies all points of emission
- o Specifies allowable emissions in mass emissions rate or concentration terms wherever feasible
- o Specifies limits on operating hours/rates where these are part of an applicability determination or the result of an impact analysis
- o Specifies applicable offsets in the permit and makes them a condition of source operation
- o Provides that permit expires if the source does not commence construction within a certain time frame
- o Specifies whether source or State responsibility for sampling
- o Provides for reporting of milestone data (e.g., dates when construction begins, construction complete, compliance test conducted)

b) Practically

- o Specify method of determining compliance for each emission point and each requirement (e.g., reference method, CEM, record-keeping if necessary, etc.)
- o Preventive requirements if necessary
- o Opacity limits if appropriate -- specify averaging time
- o Parameter monitoring -- specify measures and desirable ranges

6) Results

Ideally, all oversight would use "results" as the measure of performance. In air pollution control, however, significant levels of professional judgment must be used in determining what the proper outcome of any new source permit action is. Since one of the fundamental principles of delegation is that

\*Source: Region VI "Minimum Enforceability Criteria"

such judgments should be made by State and local programs, the issue of oversight of outcomes is almost inextricably tied up with the question of oversight of judgment. Therefore, the following measures are offered as suggestions, in the expectation that there will be further discussion on this point.

- o Do State permits require NSPS/NESHAP sources to meet applicable emissions limits, performance test, and continuous monitoring requirements?
- o Did the State follow its own rules in making permit decisions (e.g., regarding public comment)?
- o Are State BACT/LAER determinations "reasonable"?
- o Did the State apply the Guideline models or approve alternatives properly?
- o Are new sources complying at start-up? On a continuous basis?

#### Measures and the Exercise of Judgment

These measures, while more "objective" than those currently in use, still require judgment. This is a necessary and proper component of evaluation. However, the measures attempt to set some guidelines for the exercise of this judgment by EPA in order to avoid the problem of "second guessing." For instance, they focus more on determining whether a State 1) has the staff and tools it needs to make certain decisions and 2) has procedures which make it likely that certain factors will be taken into account in making these decisions, rather than on attempting to evaluate the outcome of any particular decision.

To some extent, as was noted in the section on "Results," these are "procedural" measures which substitute for direct measures of the outcomes of specific decisions (as would be the case if EPA commented on the propriety of an individual BACT or LAER determination). The problem with "outcome" measures, again, is that information on (for example) what "BACT" or "LAER" is for a particular source is not always available. Even when it is, judgment is an essential part of establishing what these are for a particular source. EPA can help its own case by increasing the availability of exemplary determinations, through the "Clearinghouse" or some other mechanism. Yet if EPA is to avoid "second guessing," it must allow the judgments made by States in such cases to stand unless there are flagrant cases where it is immediately apparent that a State has not applied BACT or LAER. The one exception to this is for NSPS/NESHAP sources. Here States agree that the importance of interstate environmental equity combines with the existence of clear national standards to make an outcome measure necessary, appropriate, and practical.

The point must be reinforced that performance against these measures is an item which EPA and the State must negotiate and agree upon in advance. EPA cannot develop performance standards on its own and apply them without warning to the State. Moreover, "zero errors" from EPA's point of view is not an acceptable standard; EPA cannot expect States to agree with its views 100% of the time. What EPA can expect is States will make good faith, professional efforts to comply with the letter and spirit of the law, and be willing to work with an EPA which sees good performance by States as a measure of its own success.

### Consequences of Oversight

"Consequences" of oversight are generally thought of as bad things. This should not necessarily be the case. EPA should note areas where State programs are performing well and command these in any formal report. Individuals who are doing good jobs should be cited specifically for special recognition. Praise is an important oversight consequence -- and EPA should remember in giving in that substantive achievements in new source review, if they are to occur at all, must come primarily from the efforts of State and local staff.

Problems with State new source review programs may have been identified through any of the mechanisms suggested above. They may be of two types -- a problem with an individual permit or a flaw with the overall conduct of the State program which is affecting many or all permits.

Specific Permits: State Views on Consequences -- States agreed on some "consequences" of oversight and disagreed on others. For example, where EPA has a comment on a draft State permit action, States felt that comment should be expressed during the public comment period and not afterwards. However, on whether EPA should retroactively challenge permits, a variety of views existed.

- o Pennsylvania believed that EPA could require retroactive permit changes if it found serious flaws in a State's determination. This was thought to be unlikely, however.
- o Virginia said that permit problems should be brought to the attention of the State for future reference but should not be used to make retroactive permit changes.
- o Georgia officials felt that the key to EPA's actions in such case should be the magnitude of effect of the error. If a NAAQS or increment were violated as a result of an error, the case should be reopened; if not, it should be noted for future State reference but no further action should be taken.

- o Texas, Ohio and Michigan stressed that the State should have the opportunity to correct any identified problems, and that any independent EPA action should come only as a last resort.
- o Michigan also said that EPA should sue the permittee if a permit was discovered which was "illegal" and would adversely affect air quality only after working with the State. However, EPA should continue to work with the State even while threatening the court suit, and withdraw suits which become moot due to State correction of the problem.

Overall Program: State Views on Consequences -- States recommend that more frequent or more extensive audits be used if a problem which affects the entire program is found. Targeted EPA technical assistance (e.g., supplying additional hardware needed for modeling) or training to help correct the problem was also suggested.

Audit reports have only been used in a few instances. The States which received them had some complaints about specific items which they contained. However, they also noted their belief that their program and the programs of other States had improved in response to EPA's comments. Ohio has adopted a similar system of audits and formal reports for use in evaluating its district offices and local agencies.

Michigan and Ohio felt that the audit reports should be based on items discussed in an "exit interview" with State program managers, and subsequent discussions with the State.

Grant conditions have been used primarily to get States to accept PSD delegation and have not been widely used to follow up on oversight findings. They have had mixed success. Michigan reported that it was objecting to EPA's past use of grant conditions to impose procedural requirements on the State (e.g., for permit submissions) and would not agree to such conditions in the future. Texas, however, noted that some of the grant conditions imposed by Region VI had been beneficial because they forced the State to become more explicit and systematic about its management choices (in this case, the subject was inspection priorities). However, Texas also objected to the vast amount of reporting which grant conditions required.

Only Ohio reported any use of State-EPA Agreements for "oversight and related" purposes. In this case, Ohio inserted as an SEA objective its desire that communications improve between the State and Region V Air Enforcement. Ohio officials were quite positive about this use of the SEA as a means of communicating its major concerns to the Regional Office.

Recommendations on Consequences -- As has been noted earlier, the most important element of consequences is that, along with

measures of performance and standards of judgment, they be agreed upon in advance through discussions with State officials. This should produce realistic assessments of what can be done and reasonable agreement on what should occur (e.g., training, technical assistance) if standards are not met. The emphasis for EPA should be on how it can help States meet such standards in the future.

While the correction of program deficiencies should take precedence over individual source problems, it is nevertheless likely that individual State-issued permits will come up as disputes from time to time. These are inherently controversial because they may require major investments by the source. In these cases we recommend the following:

- o EPA should assess the severity of the problem. If it does not threaten NAAQS or an increment, or is not a flagrant violation of BACT, it should not force a retroactive permit change.
- o EPA should discuss with the State whether the problem is an isolated event or a symptom of a broader concern. A more extensive audit, focused on other potential examples of the problem, should be performed if EPA and the State disagree on this point.
- o If a permit change is felt necessary, then the State should be given every opportunity to make the change, and discretion about precisely how to implement it (e.g., terms of a compliance schedule). The State, not EPA, should negotiate the change; EPA should provide technical backup to the State if requested and participate in source negotiations only if requested both parties.
- o Direct action by EPA should be taken only as a last resort, only in extreme cases, and only with the approval of top Regional management.

### Summary of Recommendations

A long list of recommendations have been made in the course of Part III. These are summarized here for the convenience of the reader.

<u>Item</u>	<u>Recommendations</u>
1. Goals of New Source Review and Oversight	1. Focus oversight more on achievement of broad goals than on exact compliance with every detail of implementing regulations.
2. Extent of EPA Oversight	2. Adopt an "EPA the Franchiser" model; focus EPA actions on areas where EPA has the greatest comparative advantage, such as improving pollution control technology, disseminating information about new control techniques, and stimulating advances in modeling. Shift toward building the capability of State and local programs to handle problems without EPA intervention.
3. Tailoring EPA Oversight	3. Adapt the extent of oversight and the methods used to the conditions of each State program; assume declining oversight over time unless problems develop.
4. Mechanisms of Oversight	<p>4a. Minimize requests for routine State submissions. In most cases public notices should suffice. Further study is needed on whether EPA needs a duplicate file of final State permits.</p> <p>b. Direct involvement in State permit actions should be kept to a minimum, and limited to controversial cases or cases where a State requests EPA involvement.</p> <p>c. Program audits are potentially the most useful oversight mechanism. They should be conducted by EPA staff at the State office, and include both discussions with State staff and a review of selected State permits, with selection criteria to be discussed in advance with the State. Audit frequency may vary depending upon the preference of the State and the results of past reviews.</p>

The focus of audits should generally be on the overall capability of State programs, but areas (e.g., selected industrial categories; program components) may be targeted for special attention from year to year. EPA should prepare formal reports which discuss audit findings and specify the criteria used in evaluating the program.

- d. Plant audits offer some oversight possibilities but difficulties remain with this option.

## 5. Objectives and Measures of Performance

- 5a. Measures and standards of performance should be established in advance with the State. "Zero errors" should not be explicitly or implicitly applied as a standard.
- b. Suggested measures of results should be used where available (e.g., NSPS sources). Procedural measures may be a substitute where clear measures of results cannot be used.
- c. EPA should avoid "second-guessing" judgment decisions made by States.

## 6. Consequences of Oversight

- 6a. Positive oversight findings should be stressed as well as negative ones.
- b. EPA should emphasize positive steps it can take (e.g., technical support, training) to build the capability of State programs in problem areas.
- c. EPA action to correct problems with specific permits should vary, depending on the environmental effect of the problem and whether it reflects a single incident or a general problem with the State program.
- d. EPA should give States every opportunity to correct identified problems, and intervene only as a last resort and with the approval of top Regional management.

## PART IV: APPENDICES

## APPENDIX 1: Summary of Regional NSR Oversight Approaches

We have surveyed EPA's Regional offices regarding their present oversight practices for State New Source reviews. We have also supplemented this survey with site visits to Regions III, IV, V, and VI. These visits were conducted prior to our interviews with State officials in each Region.

Existing approaches to Regional NSR oversight range from a minimal program based almost exclusively on informal contacts (Region I) to a system of program audits (Region V), with most Regions relying primarily on informal contacts and parallel reviews where the Region still has PSD responsibility (See Table I). The attention paid to State reviews of PSD sources is almost always more intensive than that given to other components of new source review. Regions with the most PSD-delegated States tend to have the most formal oversight approaches, and other Regions are moving to develop oversight programs under the pressure of approaching PSD delegation.

### WHERE ARE OVERSIGHT APPROACHES SPELLED OUT?

Where formal oversight approaches exist, they may be spelled out either in a delegation agreement (for PSD/ NSPS/ NESHAPS) or in the State § 105 grant agreement with the Region. These formal arrangements, however, only detail what the State will routinely send to EPA. They have not been used to describe a broader oversight approach and philosophy, or to establish "standards of performance" for State programs.

While some Regions which do not now have formal oversight approaches are in the process of developing them in conjunction with negotiations over the delegation of PSD, only Region IV has developed a formal statement of NSR oversight policy which is linked to a larger policy statement governing all delegated programs (e.g., construction grants, NPDES permits).

TABLE I: BASIC REGIONAL OVERSIGHT APPROACHES AND EXTENT OF PSD DELEGATION

Region	I	II	III	IV	V	VI	VII	VIII	IX	X
<u>Basic Oversight Approach</u>	Little Oversight	Post-hoc review of about 10% of all State NSR permits (including minors)	Program and Permit Audit (PSD only - prospective)	1) Post-hoc 10% permit review 2) Application review for selected "critical" facilities 3) In-depth program review (1 state/year)	Annual or Bi-annual Program Audits, including post-hoc review of selected permits	Post-hoc Enforcement review of selected % of permits; percentage around 10% but less for Texas	Review of controversial State NSR permits	Review of all major new source permits proposed by States	Review of a small number of large sources at the request of local agencies	Permit reviews --generally post-hoc except for off-sets
States/Region	6 States	4 States <sup>1</sup>	6 States <sup>2</sup>	8 States	6 States	5 States	4 States	6 States	6 States <sup>3</sup>	4 States
<u>Extent of PSD Delegation</u>	2 PSD SIP	0 PSD SIP	1 Full Deleg.	2 PSD SIP	4 Full Deleg.	1 Partial Deleg.	1 Partial Deleg.	2 PSD SIP	0 PSD SIP	0 PSD SIP
(As of 6/30/81; does not count pending actions)	0 Delegation	0 Delegation	1 Partial Deleg.	3 Full Deleg. 3 Partial Deleg.	2 Partial Deleg.				0 Deleg.	0 Deleg.

<sup>1</sup> Includes Puerto Rico and Virgin Islands

<sup>3</sup> Includes Guam and American Samoa

### SPECIFIC METHODS NOW USED TO CONDUCT OVERSIGHT

The Regions reported the use of a variety of specific oversight mechanisms, ranging from informal contacts to formal program audits.

#### Informal Contacts

Most Regions rely heavily on informal contacts to both conduct oversight and encourage States to correct problems uncovered by oversight. Region I, for example, relies almost exclusively on informal methods of both oversight and correction, reflecting relatively low levels of new source activity in that Region. Region IX has relied heavily on informal contacts because the resource demands of direct PSD permitting have prevented the development of any more formal oversight approaches.

#### Permit Review

Regions with higher levels of new source activity or more extensive delegation of PSD to States also use informal methods of oversight and correction, but have adopted other methods as well. The routine review of permits issued by States is the most common mechanism, as all Regions other than Region I noted that at least some such review took place.

Methods used for permit review, however, varied substantially among the Regions. They differed in four respects:

- o Who reviews permits;
- o Whether review occurs before or after the State issues the permit;
- o What percentage of permits are selected for review; and
- o How permits are selected for review.

No two Regions do these four things in the same way. Each Region's review system is a custom-built composite which reflects the Region's general approach to dealing with State programs. Table II summarizes the Regional practices in this area, and they are discussed further below.

On the question of who reviews permits, Regions III, IX and X reported that Regional Air Enforcement Branches do most of these reviews at present, though Region III expects this to

TABLE II: NEW SOURCE PERMIT REVIEW APPROACHES USED BY REGIONAL OFFICES

Region	I	II	III	IV	V	VI	VII	VIII	IX	X
Method	I	II	III	IV	V	VI	VII	VIII	IX	X
Do reviews?	Little review	Air Facilities Branch	Air Enforcement, except APB review w/ PSD delegation	Air Facilities Branch	Air Programs and Air Enforcement	Air Programs and Air Enforcement	Air Programs	Air Programs	Air Enforcement (Permits Branch)	Air Enforcement (NSPS)
Pre- or post issuance review?		<u>Post</u>	<u>Post</u>	<u>Pre:</u> "critical facilities" <u>Post</u> -10% audit	<u>Pre:</u> APB if State asks; and PSD in delegated States <u>Post</u> -AEB routine	<u>Pre:</u> Controversial <u>Post:</u> APB/AEB	<u>Pre:</u> Iowa <u>Post:</u> Nebraska Kansas Missouri	<u>Pre and Post</u>	<u>Post</u>	<u>Post</u>
Percentage viewed		10% State NSR. Expect to review all PSD first year then declining %		Use 10% as guidance	All majors by AEB; variable degree of review	10% guidelines; varies by State	Less than 5%	100% majors	Infrequent	10% NSPS, 100% all NSPS tied for compliance w/delegation agreement. All offsets.
How selected		Applicability questions; some selected at random	Controversial	Critical facilities, outlined in policy statement plus random selection of 10%	Audit team selects permits at random or at State suggestion	Selected at random	Controversial	N/A	Controversial or suspected applicability problems	Controversial or selected at random

Note: The universe of permits reviewed by each Region for "oversight" purposes will vary, depending on the extent of PSD delegation in the Region

change as PSD is delegated to the States. Regions V and VI have more of a joint review process (although with greater involvement by the Region V Air Programs Branch), while review responsibilities in Regions VII and VIII appear to rest primarily with the Air Programs Branch. Reviews in Regions II and IV are conducted by the Air Facilities Branches.

Regional involvement before or after the State issues a new/modified source varies. Region IV is the most explicit in distinguishing permit facilities in which the Region will get involved before final State action ("critical facilities") from those which will receive at most a post hoc review (all others.) Region IV's involvement is particularly distinctive because they are requesting copies of the facility's application for joint review by EPA staff. Most other Regions who do preissuance reviews (e.g., Region V for PSD) get a copy of a draft permit and supporting analysis from the State. Involvement prior to permit issuance occurs in other Regions, but as a matter of practice appears to be limited to permits for sources which are subject to PSD, offset requirements, or are otherwise controversial (or where the source is subject to direct EPA permitting authority under PSD). The Region VI Air Programs Branch used to do a more extensive review of draft State NSR permits but has had to abandon this under the pressure of time and staff resources.

The percentage of State permits reviewed also differs across Regions. Region VIII reported that it reviews all major new source permits issued by all States in the Region. In contrast, Region VI enforcement reviews about 10% of all (major and minor) NSR permits issued by its States. Region X also used the 10% figure as a reference point for reviews of State permits by its Air Enforcement Branch for States with delegation under NSPS. However, Region X also noted that all State actions under NSPS authority were "tracked to ensure their conformance with the terms of the delegation agreement." Region IX reviews only a small number of permits--usually those on which applicability questions exist.

The percent of NSR permits reviewed in Region VII varies from State to State, depending on the number of major or controversial permits in a particular State. The Region reviews all such major or controversial actions in each State; these reviews occur before final action in one State and after final action in the other three. These reviews result in Regional intervention in State permit actions in less than 5% of all permits.

Region III expects to use the review of selected permits in overseeing State programs for PSD when delegation occurs. These reviews will be post hoc with the percentage of reviewed permits an item for negotiation between the

State and Regional office in the course of agreeing upon the terms of PSD delegation. Region IV is also applying a 10% post hoc review approach to State NSR permits, with the provision noted above for joint review of permit applications for selected "critical facilities."

Region II makes the most extensive and formal use of permit reviews as an oversight method. In 1980, for example, Region II Air Facilities Branch reviewed about 100 of the 1000 new source permits issued by New York State. (Note: New York State issues a separate permit for each emissions point; the 100 permits consist of emissions points at about 30 facilities). At the same time, the Regional office conducted 6 PSD permit reviews, since New York has no PSD SIP and Region II's General Counsel does not believe EPA has the authority to delegate PSD. About 50-60 of the State new source permits reviewed by EPA were looked at because of applicability questions; the remainder of permits for review are chosen at random from final permit submissions by the State. AFB staff will review the State determination and write up an independent assessment, which concludes with the Regional engineer's judgment of whether or not the permit was properly issued. Feedback on the results of these audits is usually given at quarterly meetings of Regional and State personnel or through informal referrals between Regional and State staff; the Regional is trying to formalize the referral process somewhat more this year. Region II has never had a case where they had to ask the State to revoke an issued permit, although this has come close to happening on at least one occasion. Generally, some revision to a "faulty" permit can be worked out among the Region, the State, and the source.

Region II expects New York State to submit a PSD SIP soon. When this SIP is approved, the Region expects to audit all New York PSD permits during the first year, then gradually reduce the audit percentage over time unless problems are uncovered in the State program during the first year.

Conversations with several Regional Offices have indicated that the percentage figures for post hoc permit audits (e.g., 10%) are estimates only, and few Regional staff expect to rigidly adhere to them. Moreover, criteria for selecting permits for audit (random, targeted, etc.) were not clear, nor was it clear whether certain parts of the permit action are or would be reviewed more closely than others. The one exception to this was the review of emissions limits and permit conditions for enforceability by Regional Air Enforcement Branches.

#### Grant Agreements and SEA's

Four Regions indicated that they use grant reviews as an opportunity to either conduct oversight or institute corrections. Grant agreements, of course cover the entire range of a State or local air pollution control program, and

responses do not indicate how effective grant reviews are in identifying and correcting program deficiencies. They do, however, offer an opportunity to integrate oversight of New Source Review with more general concerns about State or local agency activities. Regions V and VI appear to make the most extensive formal use of grant agreements to specify, in delegated States, what documents the States had to submit to the Regional Office (e.g., public notices, draft permits, etc.) Table III shows how Region V used grant agreements for this purpose.

Only three Regions (III, IV, and VI) indicate any use of State-EPA Agreements for "oversight". Region IV notes that few air oversight issues "fall into a category that is appropriate for inclusion in the SEA as that concept is evolving." The other two Regions indicate the use of SEA's for oversight and correction, but provided no discussion of just what this means. A quick review of Region VI's 1981 SEA's, for instance, shows that no Air issues are included in the Texas SEA, while commitments in other SEA's which relate to NSR focus almost exclusively on getting States to take on PSD. Commitments in Region III SEA's are of a similar nature. Given this, it is premature to say that SEA's are now being used for NSR oversight.

#### Program Audits

Six Regions indicated that they either make or are planning to make some use of program audits in overseeing various parts of the NSR program. Air Enforcement Branches in Regions I and X have used these audits to oversee State enforcement programs for NSPS/NESHAPS sources. Regions III, IV and VII have proposed such audits for future oversight, particularly of State PSD programs. Region IV has sponsored contractor audits of two of its State programs which resulted in written reports and changes in State management practices. The Air Programs and Air Enforcement Branches in Region VI conduct annual audits of State NSR programs which include site visits and reviews of State permit files.

Region V has made the most extensive use of program audits in overseeing State NSR performance. Region V has conducted site visits to all of its State agencies and some local agencies as well, visits which lasted for two or three days and involved both reviews of State permit files and discussions with State staff. The Region conducted exit interviews with program managers, and prepared formal reports with findings and recommendations that were sent to each agency.

TABLE III: REGION V's USE OF GRANT AGREEMENTS TO  
SPECIFY STATE PERMIT SUBMISSION REQUIREMENTS

State Submits  
Copies of:

STATE	Permit Applications	Staff Analyses	Public Notice	Preliminary Approvals	Final Permits
Michigan		For PSD permits and others requiring a public comment period			
Ohio*				NSR permits	
Wisconsin	PSD permits				PSD permits (quarterly)
Indiana	No. of NSR/PSD applications reviewed quarterly (FY 80)	NSR permits PSD permits			NSR permits (FY 81) PSD permits
Minnesota	PSD				NSR permits -external offsets as SIP revisions -internal offsets for info. PSD permits (quarterly)
Illinois		PSD permits	PSD permits		PSD permits (quarterly)

\*PSD is not covered in the Ohio grant agreement

The table above is based on an analysis of the conditions contained in the \$105 grant agreements each State in Region V. It shows what each agreement requires the State to submit to Region V under either NSR or PSD requirements. "NSR" in this table refers only to sources with emissions greater than

The Region V audit reports for 1980 identified a number of problems with individual State/local programs. Still, with one exception, the reports indicated that the Region was generally satisfied with the progress of the State or local program, and problems and recommendations were presented as exceptions to be corrected rather than as symptoms of broader program deficiencies. The one exception was a State report which contained an unusually long list of problems which the Region considered serious.

Region V is moving, at the request of its States, to coordinate the NSR oversight audits conducted by the Air Programs Branch with other State Program reviews conducted by Air Enforcement and S&A Branches. While each Branch now still sends out separate audit team, they will pool their findings in a combined report on each State agency. These "comprehensive air agency audits" are now getting underway, and the Region is now planning to use a combined audit team in the future. The Region expects these "comprehensive audits" to replace the \$105 grant "mid-year review" which has occurred in the past.

## APPENDIX 2: Assessment of Routine Submissions to EPA

### o List of New Source Actions:

Pennsylvania, Virginia and South Carolina submit lists of permit actions. Pennsylvania submits applications received; Virginia and South Carolina submit final actions. All indicated it is not a bother but they questioned infrequent inquiries on whether PSD would apply to specific sources.

### Possible Purposes:

- identification of potential sources requiring EPA action where program (PSD, NSPS, NESHAP) is not delegated.
- familiarization of EPA staff with state permit actions in preparation for the program audit.

### o Selective Permit Applications:

None of the States interviewed are routinely submitting copies of permit applications for major sources. Region IV is instituting its selective/active oversight program and has recently requested copies of permit applications in cases involving interstate impacts, hazardous waste facility, EIS, energy facility and highly controversial cases. .

States uniformly thought that permit applications are most difficult items to send to EPA. They would be of value, in the State's view, only if EPA were going to perform a parallel review which would lead to second guessing. While States had a problem with permit applications as a routine submission, States did indicate that they had no problem providing applications to EPA on a selective basis in isolated cases where EPA must get involved (see next section on direct involvement).

### Possible Purposes:

- basis for active involvement in selective application reviews
- duplicate final permit file in Regional Office to support enforcement and inspections.

o Draft Public Notice/Permit

Virginia, South Carolina, Georgia, Texas, Ohio and Michigan have had to submit draft notices and permits. All but Virginia send for major sources only 1/ and also now submit final permits.

Two months ago, Region IV changed South Carolina's requirement from draft permits to final permits. Texas indicated that they felt they should discontinue the practice of sending drafts to EPA when they are operating under full delegation or their own PSD SIP. Region VI's Air Programs Branch indicated that they do not have the staff resources to be reviewing all of the draft permits for sources other than PSD and have asked the States to stop sending them. Region V's Air Enforcement Branch used to review draft State major source permits but is moving away from this practice to focus more on the enforceability of final permits. The Region V Air Programs Branch does still review draft PSD permits submitted by the States and comment on some of them.

Possible Purposes:

- basis for active involvement (e.g. formal public comment on proposed state action).
- familiarization of EPA staff with state permit actions in preparation for the program audit.

o Final Permits

All of the states interviewed except Virginia and Pennsylvania submit final permits for all majors. Ohio submits all final new source permits including minors. In addition, Georgia was recently asked to send to Region IV 10% of all of its final permits in support of EPA's audit. Region III enforcement is contemplating requests of its states to submit final permits in order to have a complete record of the state's SIP requirements. In Region V final permits are sent to Enforcement whereas the drafts are sent to the air program.

All states felt that a final permit is the briefest document they could send to EPA. They did indicate it is discouraging because they get no feedback and do not understand its value to EPA. State staff indicated that final permits often reference applications, and unless you were very experienced you would need the entire source file to understand what is required.

1/ Michigan has its own criteria for what is sent to EPA.

Michigan has been asked on several occasions to provide final permits for all new sources, including the backlog. They have refused to send the estimated 10,000 permits.

EPA's Regional enforcement offices felt the final permits were necessary as a record of SIP limits and as an alternative to having to visit State offices to review permit files prior to making an inspection. It is DSSE policy, however, that the Regions and/or their contractors visit States prior to such an inspection. Region V enforcement staff intend to review final permits for enforceability problems which they will try to get the States to correct (e.g. are sources of offsets specified in the permit). Region VI enforcement staff review about 10% of State new source permits here for this purpose, using written "Minimum Criteria for Enforceability" as their standard. These "Criteria" are imposed on States as conditions of the State's \$105 grant.

Possible Purposes:

- formal record of state final permit limits for:
  - enforcement files (inspections)
  - compliance data system
    - identification of exemplary permit limits for the BACT Clearinghouse.
- familiarization of EPA staff with state permit actions in preparation for the program audit.
- identification of erroneously issued permits.

### APPENDIX 3: State Comments on Direct EPA Involvement in State Permit Actions

#### General Comments

All of the States we interviewed believed that EPA should not get involved in State permit actions as a general rule. However, most States recognized that some EPA involvement was probably inevitable in certain cases, and did not have philosophical objections to it as long as EPA followed certain rules in making its comments.

Rule #1: Comment Within The Public Comment Period -- Virginia, Texas, Ohio, and Michigan all stressed that if EPA chose to get involved in a specific permit action, it must do so within the State's public comment period. Failure by EPA to do so is a major cause of friction between EPA and the States. Post-closure comments can delay (at best) the issuance of a State permit by forcing the re-opening of the comment period -- a major headache. Acceptance of ex parte comments by EPA can cause administrative and legal difficulties for the State.

Rule #2: Alert the State in Advance -- Michigan was critical of comments on a pending permit action which were transmitted to the State one day before their governing Commission was to hold a public hearing on a permit. Ohio expressed concern that EPA reviews of a permit file might prompt an EPA enforcement action without prior consultation with the State. Virginia stressed the importance of prior EPA-State contact so that when comments came there were "no surprises."

Rule #3: Comment Only On Important Issues -- Georgia suggested that the key to any EPA action on a State determination with which EPA disagreed should be the magnitude of the effect of the States action. If EPA felt a permit action was in error, but this action would not violate a NAAQS or applicable increment, EPA should note the error for future discussions in a State program review. If, on the other hand, a NAAQS or increment were violated, EPA should intervene in the action.

#### Sources in Class I Areas

(Note: Most of the States we interviewed had few or no Class I areas).

- o Pennsylvania - No extra EPA involvement at the "front end" of the permit process
- o Virginia - No EPA involvement unless the State requests assistance (e.g., in modeling, in arbitrating a dispute with a Federal Land Manager or in dealing with other Federal agencies).
- o Georgia - No special EPA attention; target if necessary for a higher percentage audits

- o South Carolina-No special EPA attention
- o Texas - Any EPA comments it should be made within the State public comment period.

#### Sources With Potential Interstate Impacts

- o Pennsylvania- New legislation needed to allow States to challenge permit actions taken by other States; §126 has not worked well; greater direct EPA involvement is not the answer if EPA cannot resolve the conflict and gets involved unnecessarily
- o Virginia, Georgia, Texas, South Carolina, Ohio, Michigan - The area is important but EPA should get involved only if asked by States; EPA "shouldn't go looking for problems"

#### Permits Involving Hazardous Air Pollutants

- o Pennsylvania,- No special reason for direct EPA involvement -- audit both RCRA and air programs
- o Georgia - involvement -- audit both RCRA and air programs
- o Virginia - Would like more EPA technical assistance
- o Texas - EPA should assess State capabilities to ensure needed coordination occurs
- o Ohio - Would like more EPA technical assistance; EPA should ensure that States specify clear lines of authority for hazardous waste permitting
- o Michigan - EPA involvement in "controversial" actions; possible "probation" for problem States

#### Environmental Impact Statement Cases

- o Pennsylvania - EPA should find a way to delegate EIS review to State agencies
- o Michigan - EIS should not produce EPA involvement in specific permit actions, especially since air permits often follow an EIS due to lack of detailed information on plant design EIS review should be delegable since Michigan has an equivalent EIS requirement.

## APPENDIX 4: Summary of State Views on EPA Program Audits

### Pennsylvania

- o Program reviews are generally desirable on an annual or semi-annual basis.
- o Audits would include a review of a percentage of State permits, both majors and minors.
- o Audits should replace day to day involvement.
- o Audits should be conducted by staff who are familiar with the State program and its strengths and weaknesses.
- o EPA could request items which a permit file should contain without requiring it.
- o Criteria for evaluation should include
  - Whether the State has been following its own rules
  - Whether NSPS/NESHAPS are met

They should not focus on management issues (e.g., permit processing times).

- o EPA could challenge "serious" permit flaws but need for this is unlikely.
- o Audits could be tailored to the "adequacy" of each State program.

### Virginia

- o Suggest focus on specific source categories where EPA has special concern and expertise; source categories could vary from year to year.
- o The tone and conduct of "audits" is critical; suggest calling them "liaison visits."
- o Saw audit as an opportunity to learn what other States are doing.
- o They are trying now to better organize their own files and documentation.
- o Audit problems should be brought to the State's attention but not be used to make retroactive permit changes.

Georgia

- o Audits could occur as often as "three or four times per year."
- o Regional staff, in doing permit reviews, should both look at the files and talk to responsible State staff.
- o Criteria for evaluation should be 1) whether individual source permits conformed with applicable State and Federal standards, and 2) whether State reviews were adequately protecting NAAQS.
- o EPA oversight activity should increase as its item by item responsibilities decline.
- o Oversight must and should vary from State to State, depending on the State's capabilities and performance.
- o Delegation should not mean that EPA and the State must agree on every decision, and oversight must reflect this. Oversight must focus on major issues, not on every single detail.

South Carolina

- o Existing semi-annual program reviews are very useful, but the mid-year review of the grant agreement is a "bean count."
- o The percentage of major source permits reviewed should be higher at first and decline as the State demonstrates its ability to perform the reviews.
- o It is fair for EPA to ask for auditable files; doing this will require additional effort by the State.
- o Once basic State capability is established, EPA audits should focus on 1) items which affect economic competition among States and 2) aspects of permits for which national uniformity is essential.

Texas

- o Texas agrees with the concept of oversight as long as it is "visible" but not "persuasive".
- o State staff suggested two audits per year, one to be sent to Washington, and one solely for Regional office use.

- o Audits should include the examination of State files for a few selected permits and discussions with State staff to suggest how reviews might be done better in the future. EPA should not expect to review every PSD or other permit action.
- o EPA must not take an action against a source as a result of an audit without first giving the State a chance to act.
- o If EPA concerns about a specific judgment or interpretation are so strong that EPA feels it must exercise control over it, the interpretation should be published as a formal requirement governing the program.

### Ohio

- o The general system of annual site visits and permit reviews now used by Region V is satisfactory.
- o Ohio would like all air program reviews consolidated into a single audit.
- o States must be given a chance to act on audit findings before EPA enforcement action is taken.
- o Oversight should decrease under a PSD SIP (as opposed to delegation).

### Michigan

- o Present EPA audits have tended to result in "nitpicking" comments. However, Michigan believes that other States have improved their programs in response to EPA audits.
- o Audit staff must be knowledgeable about the State program or much time will be wasted.
- o EPA should treat State oversight like a supervisor and an employee.
  - Surface problems when controversy exists
  - Do not reverse a State decision except in extreme cases
  - Do not expect "zero errors"
- o If serious problems in State administration are uncovered, a more extensive audit should be performed of actions in the problem area.
- o EPA should bring court suits against a source for an illegal permit only if problems cannot otherwise be corrected by the State. Even if a court suit is threatened, EPA should combine to work with the State.

- o EPA grant conditions were not especially successful in imposing changes on the State program.
- o Minor source permits are a legitimate focus for EPA oversight.
- o Final audit reports on State programs should be public; this is "good advertising" for a good State program.

## Appendix 5: Present Implementation of New Source Review and Oversight

As part of our site visits to States, we asked questions about the present status of State implementation of new source review. The following appendix discusses implementation in five areas:

- o Applicability Determinations
- o Control Technology Determinations
- o Air Quality Analysis
- o Permit Review for Enforceability
- o Public Participation.
- o Operating Procedures and Management

Both actual implementation by States and present oversight by EPA in each area are discussed, along with future EPA oversight options for each activity. These options specifically apply the oversight mechanisms discussed in Part III of this report.

## APPLICABILITY DETERMINATIONS

### State/EPA Implementation

- o Applicability questions come up primarily only for sources subject to PSD, offset, or NSPS requirements. The overwhelming majority of a State's new sources are not subject to specific Federal requirements.
- o There is little focus on "marginal cases" -- e.g., only one State we visited systematically tracks minor emissions increases/decreases
- o Modifications cause the greatest difficulty in determining applicability

### EPA Oversight -- Current Mechanisms

- o Regions II and V have used audits of State permits to check applicability determinations. Region II in particular has reviewed both major and minor source permits for these purposes.
- o If a State is in doubt on an applicability question, they usually call EPA and request a ruling.
- o EPA has reviewed applications in "controversial" cases such as:
  - Where there appeared to be a need for an EPA-issued PSD permit
  - Where questions arose about whether a source was subject to the construction ban.
  - Cases of significant public interest.

### EPA Oversight -- Potential Problems

- o Sources which are in fact "majors" may erroneously qualify as "minors" and be subject to less stringent requirements.
- o Sources which should require offsets because of their geographic location in a non-attainment area may escape this requirement.
- o Sources may avoid new source review altogether. Michigan estimated that 70% of source apply for a new source permit prior to construction, 20% apply after the installation of equipment, and 10% are caught in violation, having failed to apply. They noted that after one push to enforce applicability, in which two major sources were fined \$8000 each

for construction without a permit, the State subsequently received "hundreds of applications" from other sources which had built without permits. They felt that other non-permitted sources might exist in the State, but felt that most such sources were minors.

#### State Comments/Concerns

- o States generally endorsed EPA involvement in applicability determination to the extent it was needed to ensure national consistency.
- o States suggested or endorsed the inclusion of some "minor source" permits in an audit review for applicability
- o States urged that present applicability requirements be simplified
- o States asked that if EPA uncovers applicability problems, that
  - a) EPA assess the magnitude of impact of the problem before pursuing further action, as the cost of remedial action can be quite high in specific instances.
  - b) EPA consult with State officials before taking independent enforcement action

#### Future Oversight Options

- o EPA permit audits could include a sample of "minor" or "borderline major" permits to check State applicability procedures
- o EPA could focus on the State's process for making applicability determinations (e.g., tracking of de minimis changes; use of standard operating procedures);
- o EPA could use "plant audits" -- inspections of selected facilities -- to check whether the emissions points and operational limits identified on a State's permit (e.g., capacity or operating hour restrictions) correspond to those present at the plant site.
- o EPA could focus its oversight exclusively on sources determined by the State to be "major" and accept State applicability determinations on minors as final

To successfully implement any of these will require

- o Simplified applicability rules
- o A clear checklist of applicability consideration which States could use in reviewing applications from major sources

## CONTROL TECHNOLOGY DETERMINATION

### State/EPA Implementation

- o No case by case determination

BACT/LAER usually equals NSPS where available; if no NSPS, States generally have standard "rules of thumb" for defining BACT, particularly for small boilers. Most State determinations are routine.

- o "BACT" is Chief State goal

The States we visited had their own "BACT" requirements for new sources. One case (Texas) explicitly requires "BACT" for each emissions point, regardless of "netting."

- o States want better control guidance from EPA

States now look for guidance on what control technology to use in unusual cases from wherever they can find it. NSPS, CTG, staff in other States, and OAQPS staff are all helpful in certain cases, but State staff felt EPA could do a better job of developing and disseminating information.

- o States do not want to be tagged as "requiring more than the national minimum"

Many State agencies felt under pressure from industry and elected officials to not go beyond "the national minimum" in making BACT/LAER determinations. While States do sometimes succeed in getting sources to use more stringent controls than Federal requirements, four of the States we visited indicated explicitly that they were reluctant to have this publicized.

### EPA Oversight: Current Mechanisms

- o Regions II and V have reviewed State BACT/LAER determinations as part of their program audits. Region V has criticized LAER determinations in 3 of its State audits.
- o In non delegated States, EPA has used its own PSD review to impose its interpretation of "BACT" on sources.
- o EPA has established a "BACT Clearinghouse" to catalogue information on "good" source controls and spread this among States. Its value and use to States is limited, however.

### EPA Oversight: Performance Measures

- o We have used NSPS as "baseline" for control where they exist, and have not pushed sources to go beyond NSPS. We have no performance measures for non-NSPS sources.
- o Audits in Regions II and V have criticized States for failure to document how control technology determinations were made.

### State Comments/Concerns

- o Importance of NSPS

States use NSPS as the basis for setting standards for new sources to which NSPS applies (and some related sources). All States strongly endorsed NSPS and urged their continued development. There was particular interest in the rapid promulgation of the NSPS for industrial boilers. Texas and Ohio objected to the proposal for NSPS offsets.

- o Interstate Equity

Pennsylvania, Georgia, and Ohio raised concerns about equity among States in making BACT determinations.

- o Improving Upon NSPS

Georgia and Ohio both indicated their belief that existing NSPS for particulate matter from boilers could be improved upon. Texas emphasized their desire to improve upon NSPS in general, and Pennsylvania noted that NSPS sometimes functioned as a "ceiling" which limited opportunities for further control.

- o BACT Clearinghouse

States generally supported upgrading and improving the BACT Clearinghouse. Virginia and Ohio specifically want a Clearinghouse with a data base which they can tie into via their computer. However, several States raised caveats.

- Pennsylvania, Virginia, Texas, and Ohio are concerned about the use of a Clearinghouse by industry to criticize them as "overly aggressive" States.
- No State was willing to invest many resources in reporting to the Clearinghouse.
- The greatest need for Clearinghouse data is for sources not covered by NSPS, whereas most Clearinghouse reports now are for NSPS sources.

- States disagreed on the level, extent, and type of data which the Clearinghouse needs. Virginia, for example, wanted a "range" of determinations for a source category, while Texas wanted only "exemplary" determinations.

#### Options for EPA Oversight

- o Continue to promulgate NSPS but do no active review of State BACT/LAER determinations.
- o Target NSPS sources and review selected final permits for such sources as part of program audit. Offer no comments unless NSPS are not met.
- o Target non-NSPS major sources and review selected final permits for such sources to examine the State's compliance with its own rules in making control determinations.
- o Request draft State permits and technical support documents for selected sources after receipt of a notice of a proposed permit action from the State. Respond informally or formally within the State's public comment period.
- o Improve the dissemination of information through the BACT Clearinghouse after consultation with State officials to determine what information is most needed and how it should be provided.

## AIR QUALITY ANALYSIS

### State/EPA Implementation

#### o Different Effects on Major and Minor Sources

With the exception of Michigan, States felt that air quality analysis has little effect on the siting of a source or the emissions limits which a "major" source must meet. They noted, however, that modeling does affect plant stack heights for minor sources (e.g., asphalt batch plants in Ohio). One State estimated that this effect occurred for greater than 50% of minor sources. Generally, these were cases where downwash conditions produced local threats to NAAQS.

#### o Cause of State-EPA Contention

Modeling results are a source of friction between EPA and States. Topics of discussion include:

- What models are approvable
- What models are appropriate for a specific site
- What meteorological input is required
- What emissions assumptions to use (e.g., hours of operation)
- Cost of running EPA models
- Receptor spacing

#### o Few Sources Do Independent Monitoring

States do not generally require sources to conduct extensive pre-construction monitoring, but try to work with the source to use available data. In Texas, however, sources are establishing consortia which will operate monitoring networks for PSD application purposes.

#### o Many States Do Some Modeling

All the States we visited do some screening modeling on minor sources to protect against local NAAQS violations.

### EPA Oversight: Current Mechanisms

- o Air quality analysis has only been an issue for PSD permits in delegated States -- a relatively small number.
- o EPA Region V has required some of their States to improve their modeling capability (e.g., hire a modeler) as a grant condition.
- o Region V criticized State modeling practices in all six of their 1980 audits -- though the type of practice criticized varied from State to State. Examples included:

- Relying on EPA-derived background concentrations
- Use of one year of meteorological data instead of five years
- Use of rural dispersion coefficients in an urban area.

#### EPA Oversight: Performance Measures

- o We criticized States who fail to use Guideline models or apply the precise parameters specified in the Guideline (e.g., 5 years of meteorological data; spacing receptors at 100 meter intervals).
- o We require States to get Regional approval before allowing sources to use alternative models.
- o We assess the capabilities of the modelers on State staffs.

#### State Comments/Concerns

- o Model Interpretation Where Experts Can Disagree

All the States we interviewed see modeling as an area involving significant issues of judgment. Where these issues arise, they feel that State modelers should make these judgments and EPA should refrain from "second-guessing" them (e.g., on elevated terrain impacts). State modelers will accept some limited variations in a source-provided model if they believe that these variations will not affect the model's outcome.

- o EPA Models Are Expensive

South Carolina, Texas, and Michigan all criticized EPA's Guideline models as unnecessarily expensive and complex to run. They argued that the models are "research oriented, not user oriented."

- o Approving Alternative Models Is Difficult

Michigan commented that an "ominous" amount of work would be required to get an alternative model approved. Texas felt that they could get an alternative model approved by the Regional office, but they were not satisfied with this and wanted Headquarters approval from OAQPS. This issue in Texas had held up PSD delegation.

- o Modeling for PSD

Michigan indicated that what made PSD modeling so difficult was having to track and factor in the growth of surrounding sources. The site-specific modeling itself would not otherwise be so complex. A further complicating factor,

however, was constant changes in EPA requirements for pollutants, actual/allowable emissions, baseline/input areas, and baseline dates.

#### Options for EPA Oversight

- o Retain the Guideline on Air Quality Models, but do not review specific air quality analyses. Establish only that the State has qualified modelers.
- o Formally increase State discretion in applying new modeling techniques (e.g., eliminate the regulatory status of the Guideline).
- o Review State modeling as part of program audit, including review of selected PSD permit files.
- o Focus on State procedures for pre-application review of source modeling/monitoring plans.

## PERMIT REVIEW FOR ENFORCEABILITY

### State/EPA Implementation

#### o All States Use "Boilerplate" and Conditions

Every State program has a "boilerplate" list of general conditions with which all new/modified sources must comply. These usually covered such provisions as reporting of malfunctions, compliance with orders of the Agency, notification of start-up, or revocation of the permit if construction failed to begin within a certain time. States add "special" conditions to this "boilerplate" as appropriate. The frequency of special conditions varies; Pennsylvania said about 50% of its permits have them, while Michigan reports that almost all of their permits contain special conditions. Usually, the larger the source, the more detailed the permit.

#### o Applications Are Enforceable By States

All States regard sources as subject to conditions or claims made in their permit applications. Pennsylvania noted a conflict with EPA on this, as they said EPA "wants everything written in the permit document to make it Federally enforceable."

#### o Permit Denial Is Rare

Data on new/modified source permit denials was available in three States. Virginia has denied one permit in ten years -- over a land use question. Georgia initially denied less than 5% of its applications in 1980; upon submission of further information by the applicant, all of these were subsequently approved. Ohio denied four applications for permits to install and approved 633 in 1980.

### EPA Oversight: Current Mechanisms

- o EPA Region VI has established "General Minimum Criteria for Enforceability" (see attached copy) for all new source permits in Region VI States, and has imposed a grant condition on States that all their permits must meet them. The Regional Air Enforcement Branch reviews about 10% of final State permits against these criteria.
- o Region V reviews permits for enforceability in the course of its program audits. The Region commented on enforceability problems with State permits in five of its six 1980 audit reports. Enforceability problems were particularly noted in specifying emissions offsets as a condition of

the applicant's permit. Other enforceability issues involved failures to specify emissions limits in permits, or failure to include operating hour restrictions as a permit conditions.

- o Region II has commented on occasion when a permit appears to contain a flaw with respect to legal enforceability.

#### EPA Oversight: Performance Measures

- o Region VI's "General Minimum Criteria" is the most explicit list of what an "enforceable" permit should contain.

#### State Comments/Concerns

- o States generally believe that they issue legally enforceable permits. States acknowledged difficulties, however, with the practical enforceability of permits.
- o Ohio and Pennsylvania follow their permit to install with a renewable operating permit requirement. Ohio felt strongly that the renewable operating permit gave them additional leverage over source behavior.
- o Georgia and Texas require a source to get a non-renewable permit to operate following the completion of construction. Texas requires a source to submit stack test data before it can be issued a permit to operate.
- o Opacity requirements are key enforcement tools in most States. In Ohio, where opacity enforcement is somewhat restricted by State court decisions, their enforcement program has been more cumbersome as a result.
- o CEM and parameter monitoring are only in very limited use.

#### Options for EPA Oversight

- o Review State "boilerplate" against minimum "enforceability criteria."
- o Review a sample of State final permits for consistency with enforceability criteria.

## REGION VI

GENERAL MINIMUM CRITERIA FOR DETERMINING ENFORCEABILITY  
OF NEW SOURCE PERMITS

An enforceable permit shall contain as a minimum:

1. Identification of all points of emission (both stack and fugitive).
2. Specification of an allowable emission rate for each point of emission in terms of mass rate or concentration limitations. If the existing SIP regulations provide the applicable emission limitation, the appropriate section of the regulation may be referenced in lieu of reiterating the limitation. If emission testing based on a numerical emission limitation is infeasible, the permit may instead prescribe a design, operational, or equipment standard. Any permits issued without numerical emission limitations must contain conditions which assure that the design characteristics or equipment will be properly maintained or that the operational conditions will be properly performed, so as to continuously achieve the assumed degree of control.
3. Limitations on factors which were basis for air quality impact analysis must be specified (e.g., hours of operation, stack height, materials processed which affect emissions).
4. Methods of determining compliance for each point of emission must be referenced (if part of the SIP) or explicitly identified if a reference method is not used.
5. Where continued source compliance is dependent on process variations or events which can be reasonably anticipated, preventative requirements must be specified (such as stockpiling of low sulfur coal and fuel specifications, such as ash content and sulfur content).
6. Record-keeping requirements which enable the agency to ascertain continued compliance especially where factors such as hours of operation, through-put of materials, type or quantity of materials processed are conditions of the permit.
7. A condition that the permit will expire if the construction is not commenced within certain specified time frame.
8. The condition that the source is responsible for providing sampling and testing facilities at its own expense.
9. Reporting requirements which enable the agency to monitor the progress of source construction and compliance, including the date by which construction is completed, and if different from the completion of construction date, the date by which full compliance is to be achieved.

## PUBLIC PARTICIPATION

### State/EPA Implementation

- o Public participation plays no significant role in State permit decisions.
- o The few cases where significant public participation occurs are those which involve significant land use questions.
- o Public comment periods account for a significant portion of total processing time for most permits.
- o States take the procedural requirements seriously but they have little substantive affect.

### EPA Oversight: Current Mechanisms

- o EPA has paid very little attention to State public participation programs.
- o Region V noted deficiencies in the public notice and comment provisions in two of its six 1980 audits.
- o EPA conducts public participation for non-delegated PSD permits.

### EPA Oversight: Performance Measures

- o The procedural requirements governing PSD sources (40 CFR 51.24 (g)) and other new/modified sources (51.18(g)) differ. EPA has generally required States to adhere in each case to the procedures governing the separate programs, with the result that delegated States have one set of rules for PSD permits, and a different set for everything else. However, one State noted that EPA has allowed de facto exceptions to these requirements by tacit agreement to "look the other way" at different State practices.

### State Comments/Concerns

- o No State we visited receives any public comment on 95% or more of its permits. When comments occur, they concern road noise, traffic disruption, or general "quality of life" or property value concerns.
- o Scorecard on public participation in new source permit decisions
  - Pennsylvania      -- Two public hearings in five years
  - Virginia            -- No comments, no one shows up for the hearing in 95% of cases

- Georgia            -- Of 21 PSD permits in 1980, only  
                     1 required a public hearing
- Texas             -- Receive public comment on less than  
                     5% of all applications for large  
                     sources to construct or modify
- Ohio              -- Out of 600-700 permits to install  
                     issued each year, they receive comments  
                     on 12-18

## Options for EPA Oversight

- o No oversight of State public participation requirements.
- o Continue to receive notices of public comment for selected major sources.
- o Examination of State public participation program and procedures in the course of program audit.
- o Review quality and content of State summary analyses or preliminary determinations which are the basis for public review and comment.

## OPERATING PROCEDURES AND MANAGEMENT

### State/EPA Implementation

While EPA generally has paid little attention to State operating procedures, EPA has on occasion criticized States for:

- o Failure to notify a source about whether its application is complete or not;
- o Failure to properly document and record the basis for decisions; and
- o Failure to record de minimis changes in sources which could accumulate past "major modification" thresholds.

States have developed their own mechanisms for filing permits, tracking their status, and documenting decisions. While some States felt their present procedures were adequate, other States indicated that they saw needs for improvement. Only Michigan systematically tracks de minimis emissions changes.

States with PSD authority felt that their acceptance of PSD dramatically cut permit processing times. Georgia cited a 90 day processing time, and Virginia expected to cut processing times at least in half (to twelve weeks). States saw this as a major advantage which they could offer sources subject to PSD.

### EPA Oversight -- Current Mechanisms

- o Region V has raised operating procedure issues in its audit reports.
- o The two contract audits performed for Region IV both criticized State operating procedures and filing practices.

### EPA Oversight -- Potential Problems

- o Under present regulations, failure to keep accurate records of de minimis emissions changes could result in some sources erroneously avoiding PSD review.
- o Failure to maintain adequate files would render any EPA audit program unworkable.

### State Comments/Concerns

- o EPA should not worry about State permit processing times.

- o States generally agree that EPA should specify, in some form, what an "auditable" permit should contain. Pennsylvania, Virginia and Texas specifically said, however, that this should not take the form of a regulation on permit files. Texas recommended that EPA provide examples of what it would like to see in an "auditable" file.

#### Future Oversight Options

- o Use early audits to test the adequacy of a State's filing system for audit purposes.
- o EPA should develop a proposal which specifies what an "auditable" file for a major source should contain, and identify samples (preferably State-conducted reviews) and State systems which contain the elements necessary for a auditable file system.
- o EPA should stimulate information transfer among States on recordkeeping and filing systems, and recommend that States with problems in these areas visit other "successful" States to study their systems.

It is not at all clear that section 176(a) authorizes the withholding sanction when a State refuses to submit revisions to an initially fully approved Part D revision in response to an EPA finding that the initially revised SIP has failed to produce attainment by December 31, 1982.<sup>68/</sup>

There is colorable argument that the section 176(a) sanction was intended to apply only to the first round of revisions — required in nonextension areas by January 1, 1979.<sup>69/</sup> (The same argument applies in the event of post-1987 nonattainment in extension areas.) Discussion of the cut-off sanction in the 1977 legislative history appears to revolve exclusively around that initial revision, rather than later ones necessitated by post-1982 nonattainment.<sup>70/</sup> And again there are sections 110(a)(2)(H) and 110(c)(1)(C), a revision mechanism more clearly applicable than 176(a) to SIPs that prove to be inadequate to produce attainment.

A "results" interpretation, as has been plausibly made in connection with the construction ban, is difficult to support for the funds sanction. To reiterate, this view would hold that the simple, unadorned fact of post-1982 nonattainment is enough to subject an AQCR to withholding of funds. A State with nonattainment areas, begins this argument, must submit a plan that considers each of the elements in section 172, one of which is attainment by December 31, 1982 in nonextension areas. If nonattainment persists beyond that date, then the State has not submitted a

---

<sup>68/</sup> There is no indication at present how many States would fall into this category. Presumably, States that were disposed to submit approvable Part D revisions initially might be similarly inclined as to a second-round revision.

<sup>69/</sup> The January 1, 1979 deadline for submittal of the first Part D revision is found in section 129(c) of the 1977 amendments, Pub. Law 95-95, but was not codified in the Clean Air Act itself.

<sup>70/</sup> Legislative History, *supra* note 31, at 536, 1061, and 1383.