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COMPLIANCE STRATEGY

FOR

STATIONARY SOURCES

OF

AIR POLLUTION

NOVEMBER 1983

GENC 014536

COMPLIANCE STRATEGY FOR STATIONARY SOURCES OF AIR POLLUTION

This document outlines a strategy for obtaining and maintaining compliance by stationary sources with requirements of the Clean Air Act and implementing regulations. The Clean Air Act is the Federal law designed to protect the nation's health and welfare from the adverse effects of air pollution.

The major focus of the stationary source compliance program is on the enforcement of State Implementation Plan (SIP) requirements adopted to meet national ambient air quality standards (Section 110), standards of performance for new sources (Section 111), and hazardous air pollutant standards (Section 112). The program is structured around effective, cooperative, and coordinated efforts among Federal, State, and local agencies. The strategy recognizes both the primary role of the States in prevention and control of air pollution and that of the Federal government in ultimately assuring the protection of the health and welfare of the American public.

Priorities of the stationary source compliance program have evolved to reflect the new areas of regulatory activity and the previous successes of the program. Initial compliance has largely been obtained for sources of particulate matter and sulfur oxides, which have been comprehensively regulated since the mid-1970's. The program is now shifting to assuring continuous compliance with these requirements and to addressing the problem of initial compliance by sources of emissions of volatile organic compounds, which are generally the subject of more recent regulation. Another important priority is enforcement of the hazardous air pollutant standards, especially for vinyl chloride and asbestos demolition sources.

Important policies and programs establishing the Agency's priorities are the "significant violator" program and the Post-1982 Enforcement Policy. The significant violator program identifies the Agency's highest non-emergency violating sources both for purposes of prioritization of Agency efforts and for reporting in the Agency's Management Accountability System. The Post-1982 Enforcement Policy applies to violating sources in nonattainment areas (other than extension areas) and establishes procedural and substantive requirements for EPA in resolving such violations, and in evaluating the adequacy of State efforts to resolve such violations.

A major element of the compliance program is the periodic determination of a source's compliance status. In general, State and local agencies have the lead in making such determinations with the data reported to EPA for incorporation into the Agency's Compliance Data System. EPA has developed, in concert with representatives of State and local agencies, a program for auditing State compliance and enforcement activities.

The basic method of compliance determination is an onsite inspection. Stack testing is usually required only for a source's initial demonstration of compliance and is not usually required as part of a routine inspection. Due to technical and cost considerations, continuous emission monitoring has historically played only a limited role in the air program. This creates problems in obtaining data truly reflective of the day-to-day operations of a source. This strategy suggests a broader use of continuous emission monitoring, recognizing that many of the earlier problems have been resolved and that such data can be an invaluable source of information. In addition, a follow-up strategy focusing exclusively on the issue of improved continuous compliance will be developed.

EPA provides guidance to States on inspection frequencies for different classes of sources. This guidance is utilized in establishing EPA/State agreements on State compliance assurance activities. As part of this strategy, EPA is revising very substantially its previous inspection frequency guidance to allow the States more flexibility to use their inspection resources to address their most significant air problems.

Once a violation is detected, it is EPA's policy to allow the State to take the lead in resolving the violation, if it will do so in a timely and effective manner. Otherwise, EPA will take action, consistent with its other priorities. EPA can resolve the matter informally, utilize one of a limited number of administrative mechanisms, or initiate a judicial (civil or criminal) action. The strategy reflects the maturation of the program from a strongly Federal program to one reflecting a substantially increased State role with Federal technical support.

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EXECUTIVE SUMMARY

This document outlines a strategy for obtaining and maintaining compliance by stationary sources with requirements of the Clean Air Act and implementing regulations. The Clean Air Act is the Federal law designed to protect the nation's health and welfare from the adverse effects of air pollution.

The stationary source compliance program is structured around effective, cooperative, and coordinated efforts among Federal, State, and local agencies. The strategy recognizes both the primary role of the States in prevention and control of air pollution and that of the Federal government in ultimately assuring the protection of the health and welfare of the American public.

The major focus of the stationary source compliance program is on the enforcement of State Implementation Plan (SIP) requirements adopted to meet national ambient air quality standards (Section 110), standards of performance for new sources (Section 111), and hazardous air pollutant standards (Section 112). SIP requirements are State-adopted and EPA-approved. New source performance standards and hazardous air pollutant standards are Federally-promulgated but can be (and usually are) delegated to States.

A major element of the compliance program is the periodic determination of a source's compliance status. In general, State and local agencies have the lead in making such determinations with the data reported to EPA for incorporation into the Agency's Compliance Data System. EPA is working with representatives of State and local agencies in developing an EPA program for auditing State compliance and enforcement activities.

The basic method of compliance determination is an onsite inspection. Stack testing is usually required only for a source's initial demonstration of compliance and is not usually required as part of a routine inspection. Due to technical and cost considerations, continuous emission monitoring has historically played only a limited role in the air program. This creates problems in obtaining data truly reflective of the day-to-day operations of a source. This strategy suggests a broader

We might start considering continuous monitoring for our stacks. I have in mind the Borden GCs at Ashtabula as an example.

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use of continuous emission monitoring, recognizing that many of the earlier problems have been resolved and that such data can be an invaluable source of information.

EPA provides guidance to States on inspection frequencies for different classes of sources. This guidance is utilized in establishing EPA/State agreements on State compliance assurance activities. As part of this strategy, EPA is revising very substantially its previous inspection frequency guidance to allow the States more flexibility to use their inspection resources to address their most significant air problems. The revised guidance also recognizes the increasing potential for use of continuous emission monitoring data to obviate the need for physical inspections.

Once a violation is detected, it is EPA's policy to allow the State to take the lead in resolving the violation, if it will do so in a timely and effective manner. Otherwise, EPA will take action, consistent with its other priorities. EPA can resolve the matter informally, utilize one of a limited number of administrative mechanisms, or initiate a judicial (civil or criminal) action. If the resolution includes the establishment of a compliance schedule, EPA must monitor the source's compliance efforts to assure that the schedule is adhered to. In recent years, the program has changed from a strongly Federal program to one reflecting a substantially increased State role with Federal technical support.

Efforts have been initiated relatively recently to promote compliance by industry through technical assistance and information exchange. While these efforts do not substitute for an effective enforcement program, or reduce the primary responsibility of sources to assure that they are in compliance, such efforts hold the potential for significant air quality benefits.

Priorities of the stationary source compliance program have evolved to reflect the new areas of regulatory activity and the previous successes of the program. Initial compliance has largely been obtained for sources of particulate matter and sulfur oxides, which have been comprehensively regulated since the mid-1970's. The program is now shifting to assuring continuous compliance

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with these requirements and to addressing the problem of initial compliance by sources of emissions of volatile organic compounds, which are generally the subject of more recent regulation. In addition, vigilant prosecution of ongoing litigation and enforcement of existing Federal consent decrees continues to be a major program focus. Other important priorities include enforcement of the hazardous air pollutant standards, especially for vinyl chloride and asbestos demolition sources, and broader consideration of the use of Section 303, the Act's emergency episode authority.

Important policies and programs establishing the Agency's priorities are the "significant violator" program and the Post-1982 Enforcement Policy. The significant violator program identifies the Agency's highest non-emergency violating sources both for purposes of prioritization of Agency efforts and for reporting in the Agency's Management Accountability System. The Post-1982 Enforcement Policy applies to violating sources in nonattainment areas (other than extension areas) and establishes procedural and substantive requirements for EPA in resolving such violations, and in evaluating the adequacy of State efforts to resolve such violations.

An important element of any strategy is a means for evaluating the effectiveness of the program. A sound structure for such an evaluation already exists in the Agency's Management Accountability System and can be refined, if necessary, to accommodate any additional needs which may occur. Given the very important role of the States in the air program, an essential component of the evaluation system is the reporting of appropriate State data.

COMPLIANCE STRATEGY FOR STATIONARY SOURCES OF AIR POLLUTION

I. Introduction

This document is one of a series of media-specific strategies for obtaining and maintaining compliance by regulated sources with environmental requirements. This strategy deals with stationary sources subject to the requirements of the Clean Air Act and implementing Federal, State, and local laws and regulations. It is intended to provide an overview of the essential elements of the stationary source compliance program, a summary of past and present efforts, a definition of the short-term and long-term objectives of the program, recommended strategies for achieving those objectives, and a discussion of the relative roles of the Federal and State governments in implementing the various elements of the strategy. It is not intended to supersede the extensive body of detailed implementing guidance already in effect except to the extent specifically noted.

II. Framework of the Clean Air Act

The Clean Air Act is the nation's Federal law designed to protect the population from the detrimental health and welfare effects of airborne pollutants. Air pollution often crosses State boundary lines and pollutants originating in one State may adversely impact persons and property in other States. Congress recognized the interstate nature of air pollution and charged EPA with establishing uniform national ambient air quality standards and with the ultimate responsibility for assuring that citizens in every State are protected from the adverse effects of air pollution. However, Congress also recognized that each State contains a unique inventory of sources and, consequently, each State should have the primary responsibility for designing and operating a control program to achieve the pollutant reductions necessary to meet the national ambient standards. To address the national goal of healthful air for every citizen and the States' need to tailor control regulations to their individual needs, the Clean Air Act provides for States to develop control plans and regulations which adequately limit air pollution from new and existing sources. These

plans, including the implementing regulations, are known as State Implementation Plans (SIPs). If a State fails to adopt the necessary regulations, EPA is required to adopt regulations sufficient to protect ambient standards. EPA is authorized to enforce these regulations, whether EPA-adopted or State-adopted.

Controlling emissions from existing sources is sometimes difficult and expensive because control equipment must be retrofitted to sources that were initially designed without regard to emission control. Congress recognized that effective emission controls could be more easily integrated into the design of future new sources and, consequently, it empowered EPA to establish uniform, technology-based national emission standards for categories of new sources under Section 111 of the Act. These requirements are known as New Source Performance Standards (NSPS). These standards were intended not only to maximize the air quality benefit of the replacement of older facilities but also to reduce the likelihood that relaxed emission limits could be offered as an inducement to a new plant to locate in a particular State.

In addition, Congress was concerned with the serious health effects of hazardous air pollutants and provided for EPA promulgation of national standards for those emissions under Section 112 of the Act. These requirements are known as the National Emission Standards for Hazardous Air Pollutants (NESHAPs).

In summary, there are three basic programs regulating emissions from stationary sources:

1. SIP requirements for new and existing sources as necessary to attain and maintain the national ambient air quality standards, including new source permitting requirements;
2. Technology-based NSPS requirements for new sources; and
3. NESHAPs requirements for new and existing sources of hazardous air pollutants.

In addition to their lead role in the development and implementation of SIPs, Congress clearly intended that the States be primarily responsible for enforcing air pollution requirements. However, when a State or local agency is ineffective in expeditiously bringing a violating source into compliance, EPA must fulfill its obligations under the Act through initiation of a Federal enforcement action against the violating source.

III. Summary of Regulations Under the Clean Air Act

A. National Ambient Air Quality Standards

As of November 1, 1983, EPA had promulgated national ambient air quality standards (NAAQS) for seven pollutants, as follows:

<u>Pollutant</u>	<u>Year of Promulgation</u>
Particulate Matter	1971
Sulfur Oxides	1971 (primary), 1973 (secondary)
Nitrogen Oxides	1971
Carbon Monoxide	1971 (revision proposed 8/80)
Hydrocarbons	1971 (revoked 1/83)
Ozone	1971 (revised 2/79)
Lead	1978

The stationary source compliance program has traditionally addressed itself primarily to sources of particulate matter and sulfur oxides and, more recently, to volatile organic compounds which contribute to violations of the ozone NAAQS. Greater attention to lead can be anticipated in light of the recently heightened efforts to develop State Implementation Plans to attain and maintain the lead NAAQS. Focus on the stationary source aspects of the nitrogen oxides problem has been limited due to the relatively limited and localized scope of nonattainment with the nitrogen oxides NAAQS. In addition, control of new motor vehicles could be expected to reduce significantly nitrogen oxides levels. Carbon monoxide is almost totally a motor vehicle-related problem.

This strategy will be oriented towards enforcement of standards implementing the particulate matter, sulfur oxides, nitrogen oxides (where relevant), and ozone SIP's. Due to the relatively early stage of

SIP development implementing the lead NAAQS, it will not address lead specifically. It can be expected that much of the experience with other pollutants will also be relevant for lead. While it is possible that implementing the lead NAAQS will raise some new or unique compliance issues, it would be premature to attempt to define a strategy specific to lead until these issues are more highly defined.

B. New Source Performance Standards

As of November 1, 1983, EPA had promulgated new source performance standards for 44 source categories and proposed standards for 14 additional categories. Standards include not only emission limits but also test methods, recordkeeping, and reporting requirements. Source categories regulated (and year of promulgation) are as follows:

<u>Source Category</u>	<u>Year of Promulgation</u>
Fossil-Fuel-Fired Steam Generators	1971
Incinerators	1971
Portland Cement Plants	1971
Nitric Acid Plants	1971
Sulfuric Acid Plants	1971
Asphalt Concrete Plants	1974
Petroleum Refineries	1974
Petroleum Storage Vessels	1974
Secondary Lead Smelters	1974
Secondary Brass and Bronze Ingot Production Plants	1974
Iron and Steel Plants (BOPF)	1974
Sewage Treatment Plants	1974
Primary Aluminum Reduction Plants	1975
Wet Process Phosphoric Acid Plants	1975
Superphosphoric Acid Plants	1975
Diammonium Phosphate Plants	1975
Triple Superphosphate Plants	1975
Granular Triple Superphosphate Storage Facilities	1975
Electric Arc Furnaces	1975
Primary Copper Smelters	1976
Primary Zinc Smelters	1976
Primary Lead Smelters	1976
Coal Preparation Plants	1976

Ferroalloy Production Facilities	1976
Kraft Pulp Mills	1978
Grain Elevators	1978
Lime Manufacturing Plants	1978
Utility Steam Generators	1979
(After 9/18/78)	
Stationary Gas Turbines	1979
Petroleum Storage Vessels	1980
(After 5/18/78)	
Glass Manufacturing Plants	1980
Auto and Light-Duty Truck Surface Coating	1980 —
Ammonium Sulfate Manufacturing	1980
Lead Acid Battery Manufacturing	1982
Phosphate Rock Plants	1982
Metal Furniture Surface Coating	1982
Graphic Arts: Rotogravure Printing	1982 —
Surface Coating of Large Appliances	1982
Metal Coil Surface Coating	1982
Asphalt Roofing Manufacture	1982
Beverage Can Surface Coating	1983
Bulk Gasoline Terminals	1983
Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry	1983 —
Pressure Sensitive Tapes and Labels	1983

C. National Emission Standards for Hazardous Air Pollutants

As of November 1, 1983, EPA had promulgated NESHAPs standards for certain source categories of asbestos, beryllium, mercury, and vinyl chloride. In addition, EPA had proposed standards for certain source categories of benzene, arsenic, and radionuclides.

IV. Summary of Previous and Present Strategies

Given the relative maturity of the air compliance program, many different strategies have evolved to address different elements of the program. Rather than attempt to summarize all of these policies at this point, they will be addressed (to the extent worthwhile) in other sections (e.g., past inspections strategies will be discussed in the Compliance Monitoring section, Section VII). However, as background to an understanding of the present status of our compliance efforts, it would be worthwhile to discuss briefly the Agency's Major Source Enforcement Effort and to contrast it with the subsequent program to address significant violators.

The Major Source Enforcement Effort (MSEE) was initiated in the fall of 1977 and extended until the spring of 1981 (See Attachment 1). During that 3 1/2 year period, it was the driving force of both the air and water enforcement programs. The goal of the effort was to identify and take enforcement action against major sources that had never achieved initial compliance with applicable requirements of the Clean Air and Clean Water Acts. Within this group of sources were many of the largest contributors to the nation's air and water pollution problems.

The MSEE addressed approximately 1,670 air sources. As part of this program, EPA's Regional Offices initiated judicial referrals for approximately 400 air cases (not all of which were filed). Many other sources came into compliance as a result of EPA administrative action, State judicial or administrative action, or without any such action. Major characteristics of the MSEE were the predominant Federal role and the heavy reliance on litigation. At the conclusion of this effort, it was considered that the "initial compliance" problem for TSP and SO₂ sources was generally under control.

After the conclusion of the MSEE, the focus of the program broadened to include a re-emphasis on other elements of the program which were relatively ignored during the MSEE period (for example, new source permitting requirements). In addition, compliance dates for sources of volatile organic compounds, often first regulated in SIPs in 1977, began to pass creating an additional group of violators which needed to be addressed. To help prioritize Federal actions against violating sources, the concept of a "significant violator" was developed as part of the Agency's Management Accountability System in the fall of 1981.

A significant violator was defined in December 1981 (See Attachment 2) as a source meeting any of the following criteria:

- (1) a violator of a NESHAPS standard unless the magnitude and duration of the violation are minimal and the violation nonrecurring;
- (2) a violator of new source permitting requirements, and NSPS requirements, unless the magnitude and duration of the violation are minimal;

- (3) a violator of a State Implementation Plan if the source is of sufficient size (presumptively 250 tons/year potential emissions or 100 tons/year actual emissions of any pollutant) and is so located as to impact a nonattainment area for a pollutant for which the source is in violation.

A combined Federal-State effort to address significant violators was initiated in early 1982. This has been different from the MSEE in two important ways. First, as previously noted, while the MSEE was also a joint Federal-State effort, it was heavily dominated by EPA. In contrast, in implementing the significant violator program, EPA has placed considerably greater reliance on the States for enforcement against sources within their jurisdictions. To make assumption by States of this increased responsibility more feasible, EPA has greatly expanded its support to the States through direct technical assistance and State program capacity building initiatives (e.g., workshops and technical manuals). The second fundamental change was to reduce confrontation between EPA and industry through pursuing negotiation and informal or administrative resolutions, with litigation perceived only as a last resort. (The combination of these factors, combined with others such as Agency reorganizations and resource cuts, significantly reduced the Agency's enforcement profile, thus compounding charges that the Agency was not enforcing the law.)

In the first 18 months of the significant violator program, considerable progress has been made. An initial list of 482 sources was established and, since then, an additional 271 sources have been identified. In this same period, 411 sources (representing the vast majority of the original list) have been brought into compliance or placed on an acceptable compliance schedule. More detail on the significant violator program is contained in Section VIII of this strategy.

V. Summary of Present State of Compliance of the Regulated Community

A. Definitions

This section presents statistics which will show the compliance status of stationary sources subject to air pollution regulations. Before presenting these statistics, however, it is necessary to define the universe of regulated sources and some of the terms used in the statistical summary.

The regulated community includes sources subject to SIP, NSPS, and NESHAP requirements under Sections 110, 111, and 112 of the Clean Air Act. SIP requirements include PSD and new source review provisions for new sources. SIP sources are subdivided into Class A1, Class A2, and Class B sources. Class A1 SIP sources are sources with actual or potential controlled emissions, while operating at design capacity, equal to or greater than 100 tons per year of any regulated air pollutant. Class A2 SIP sources are sources not meeting the definition of a Class A1 source but with potential uncontrolled emissions, while operating at design capacity, equal to or greater than 100 tons per year of any regulated air pollutant. Class A1 and A2 sources are collectively referred to as Class A sources. Class B sources are all remaining SIP sources. (Compliance statistics are not maintained by EPA for Class B sources.)

A source is considered to be "in violation" for purposes of these statistics if it has been found to be operating in violation of an air pollution control requirement or if, after having been found to be in violation of an air pollution control requirement and ordered to meet a compliance schedule, it fails to meet that schedule. The term "in violation" as used here does not include sources which have been found to be in violation but which are meeting the requirements of an enforceable schedule to come into compliance. Such sources are categorized as "meeting a schedule". A source is considered "in compliance" if it is meeting all applicable air pollution control requirements.

B. Current Compliance Status

The following table summarizes the current compliance status of sources subject to SIP, NSPS, and NESHAPs standards as of the end of FY 1983:

<u>Category</u>	<u>Total</u>	<u>In Compliance (%)</u>	<u>Mtg. Sch. (%)</u>	<u>In Viol. (%)</u>	<u>Unknown (%)</u>
Class A SIP	26,582	24,385 (91.7%)	502 (1.9%)	796 (3.0%)	899 (3.4%)
Class A1 SIP	14,405	12,807 (88.9%)	400 (2.8%)	609 (4.2%)	589 (4.1%)
NSPS	2,069	1,929 (93.2%)	17 (0.8%)	79 (3.8%)	44 (2.1%)
NESHAP	1,265	1,186 (93.8%)	10 (0.8%)	17 (1.3%)	52 (4.1%)

C. Historical Compliance Data

For perspective, the earliest records show that in 1974, only 59% of a universe of 17,732 SIP sources were in compliance or meeting schedules. Progress, as reflected in decreased violations rates, was most dramatic in the early years of the program and less marked thereafter. Recent data are summarized below:

Class A1 SIP sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	14,405	609	4.2%
FY 1982	14,371	549	3.8%
FY 1981	13,834	655	4.7%
FY 1980	13,316	653	4.9%
FY 1979	(Due to a change in the method of classification during FY 1979, data from FY 1979 and earlier years are not directly comparable.)		

NSPS Sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	2,069	79	3.8%
FY 1982	1,718	50	2.9%
FY 1981	1,577	58	3.7%
FY 1980	1,314	59	4.5%
FY 1979	1,053	47	4.5%

NESHAP Sources:

<u>FY</u>	<u>Total Sources</u>	<u>Violating Sources</u>	<u>%</u>
FY 1983	1,265	17	1.3%
FY 1982	1,277	28	2.2%
FY 1981	1,169	27	2.3%
FY 1980	1,089	25	2.3%
FY 1979	1,088	19	1.7%

These data, taken together, tend to suggest that significant improvement in percentage violation levels should not be expected. At any given time, some percentage of sources will undoubtedly be in violation. Thus, we cannot expect continuous improvement in compliance levels. In fact, with the increase in newly-subject VOC sources and better data on continuous compliance, we can expect and have begun to see violation rates begin to increase.

D. Emission Levels

Because improvements in compliance levels do not necessarily correlate directly with improvements in air quality, a study was conducted in 1979 to determine if significant emission reductions were being achieved. The study showed the following:

<u>Year</u>	<u>Pollutant</u>	<u>Emissions (10³tons)</u>
1970	TSP	28,492
1979	TSP	13,549
1970	SO ₂	33,569
1979	SO ₂	32,345
1970	VOC	17,160
1979	VOC	19,145
1970	NO _x	13,090
1979	NO _x	14,825

The study showed a dramatic decrease in TSP emissions (52%), despite a 34% growth in potential uncontrolled emissions during the period between 1970 and 1979. For the other pollutants, absolute emission levels declined only slightly (4% for SO₂) or increased slightly (13% for NO_x and 12% for VOC). This was due to the significant source growth between 1970 and 1979 (22% in uncontrolled SO₂ emissions and 33% for VOC and NO_x) which tended to offset the effect of regulatory activity during the same period. Of course, had it not been for this regulatory activity (especially for SO₂), emission levels would have increased much more substantially. In addition, efforts to regulate stationary sources of NO_x have been limited and much of the regulatory activity for VOC sources has been subsequent to 1979.

E. Areas of Uncertainty

It is generally recognized that compliance statistics such as those previously cited likely overstate the degree of compliance with applicable requirements. Major areas of uncertainty which should be recognized in evaluating the data are as follows:

- (1) Data are generally based on periodic inspections (annual or biennial) which usually do not involve stack testing. These inspections tend to be infrequent and are often announced well in advance. As such, they are valuable primarily in determining whether a source has the capability of complying when its control equipment is optimized. It provides relatively little feedback on the day-to-day operation of the facility. In addition, inspections often focus heavily on visible emissions because compliance for gaseous pollutants such as SO₂ and NO_x is harder to evaluate in the absence of a stack test. Continuous emission monitoring technology, which could provide an indication of day-to-day operation, has historically been limited in its application by technological and cost considerations, even though many of those considerations are no longer valid. For these reasons, it is likely that many plants experience periodic excesses due to malfunctions or inattention to proper operation and maintenance procedures which never get noted as violations. (Greater reliance upon continuous emission monitoring is an integral element of the strategy to improve the ability of both sources and control agencies to address the continuous compliance problem.)
- (2) EPA has established recommended frequencies of inspection for different classes of sources, as discussed in detail in Section VII, Compliance Monitoring. To the extent that sources are not inspected at this frequency, the problem noted in paragraph (1) is compounded. Data derived as part of the Agency's Management Accountability System indicates that approximately 25% of major SIP sources are not being inspected at the recommended frequency.
- (3) Since the compliance data used by EPA are based primarily on State inspections, they are obviously dependent on the breadth and quality of the State inspections. While much effort has been devoted to reviewing and improving the quality of State inspections, sporadic problems may still exist. (The issue of EPA oversight of State compliance and enforcement programs is being addressed as part of a

joint effort with STAPPA (State and Territorial Air Pollution Program Administrators) and ALAPCO (Association of Local Air Pollution Control Officials), as discussed at some length in the section on Compliance Monitoring.)

- (4) There have been occasional problems with getting State data into CDS in a timely manner. This involves both nonreporting by States and failure to input the data by EPA. Efforts are also presently underway to eliminate these problems.
- (5) While inventories of subject sources are generally believed to be relatively complete, a recent concern has been identified relative to VOC sources. It now appears that there are significantly more subject VOC sources than CDS presently reflects, many of which may be in violation. A more detailed discussion of this issue is contained in Section IX B.

VI. Upcoming Priorities and Goals

- A. Priorities for the stationary source compliance program for the period through approximately the end of FY 1985 are as follows:
 - (1) resolution of violating sources in nonattainment areas in accordance with the Agency's Post-1982 Enforcement Policy (as discussed in Section VIII);
 - (2) refinement of the universe of VOC sources subject to SIP requirements and enforcement against at least Class A violating VOC sources, irrespective of location. Because many of the constituents of VOC are toxic in nature, vigorous enforcement of VOC requirements can yield substantial air quality benefits even in unclassified and attainment areas;
 - (3) enforcement of lead SIP's, once approved or promulgated by EPA;
 - (4) enforcement of NSPS and NESHAPs standards, with particular attention to NESHAPs standards for vinyl chloride and for asbestos relating to demolition activities. In addition, attention

should be directed to sources subject to presently proposed NESHAPs standards if these standards are promulgated (i.e., benzene, arsenic, and radio-nuclides);

- (5) enforcement of new source review and PSD requirements; and
- (6) broader use of Section 303 (emergency episode authority) in situations presenting an imminent and substantial threat to human health.

B. The short-term goals of the stationary source compliance program cannot be articulated in such simple terms as "increased compliance rates". The reasons for this are discussed at length in Section XII, which deals with evaluating the effectiveness of the program. Unfortunately, this complicates defining the goals in ways that lead to easy measurement of their accomplishment.

Specific short-term goals of the program are:

- (1) to complete successfully the initial implementation of the Post-1982 Enforcement Policy by bringing sources on the original list into compliance with emission limitations or acceptable schedules;
- (2) to assure that at least 95% of the significant violators in violation at the beginning of FY 1984 are in compliance, on an acceptable schedule, or subject to a Federal or State enforcement action by the end of the fiscal year;
- (3) to develop a complete inventory of Class A VOC sources and integrate the data into the Compliance Data System;
- (4) to achieve inspection rates for Class A1, NSPS, and NESHAPs sources which exceed 90% of that required under the Agency's inspection frequency guidance;
- (5) to complete development of the compliance assurance portion of the National Air Audit System and begin its implementation;

- Point Source
Measurements*
- (6) to develop and implement a strategy to assure compliance with the asbestos demolition standards, at least upon full repromulgation; and
 - (7) to promote wider acceptance of the use of continuous emission monitoring technology within the industrial community and greater use of CEM data by regulatory agencies in their compliance programs.

Long-term goals of the stationary source compliance program are:

- (1) maintenance of high compliance rates for all aspects of the air program;
- (2) effective new source permitting programs;
- (3) improved systems for ascertaining the compliance status of sources on a day-to-day basis and dealing with excess emissions from poor operation and maintenance;
- (4) promotion of strategies to prevent violations of air pollution regulations, including expanded compliance promotion activities;
- (5) improved technical capabilities of both governmental and industrial personnel involved in the air pollution program; and
- (6) more effective and better defined roles and relationships between Federal, State, and local agencies.

VII. Compliance Monitoring

This section discusses the basic objectives of the compliance monitoring program, an overview of the compliance monitoring process, relative Federal and State roles and EPA's proposed program for auditing State compliance monitoring programs, guidance to States on frequency of inspections, inspection quality and complexity, and use of continuous emission monitoring technology in the air program.

A. Objectives, Overview, and EPA/State Roles

The function of the compliance monitoring program is to provide a data base for purposes of determining compliance by sources, identifying sources which may be in violation, and collecting evidence to support enforcement actions against violating sources. In addition, the presence of a visibly effective compliance monitoring program should serve as a powerful stimulus to assuring compliance by the regulated industries.

Compliance monitoring for purposes of routine determinations of compliance is largely a function of State and local agencies. EPA looks to the States to perform this function for SIP sources and for sources subject to delegated NSPS and NESHAPs standards. EPA retains the primary responsibility for these routine compliance determination inspections only for EPA-promulgated SIPs and for non-delegated NSPS and NESHAPs standards. This is a very small portion of the overall universe of sources. The Federal role is primarily to provide technical assistance, grant support, and oversight of the overall effectiveness of State efforts in addressing SIP and delegated NSPS and NESHAPs sources.

Data on compliance status as determined by the State are reported to EPA in accordance with agreed-upon procedures. Such reporting must be not less often than quarterly although, by agreement of the parties, it may be more frequent. It includes data on compliance status of sources inspected and on actions being taken to return violating sources to compliance. These data are then entered by the Regional Office into the Agency's automated Compliance Data System (CDS). Some States may directly enter the data into CDS, with EPA performing a quality assurance function on the data entry. Since CDS data form the basis for virtually all Agency reporting on compliance status, an effective CDS system and current data base are absolutely essential to the ability of the Agency to understand and articulate the status of the program and make planning and budgetary decisions accordingly.

If data show a source to be in violation, the Regional Office will ascertain what actions the State is taking to resolve the violation. If the State takes the lead on the case, the Regional Office will

track the progress of the State action. If the State is not or will not take prompt, effective action, EPA (consistent with its priorities) will assume responsibility. Once EPA assumes responsibility, it begins to document the violation for further enforcement purposes and proceeds as outlined in the section on Responding to Non-Compliance Problems, Section VIII. Discussion of monitoring activities once sources are found in violation and made subject to an EPA action will be reserved for that section.

This section will focus on the basic compliance monitoring program. As previously noted, this is largely a State responsibility. State programs are typically structured to address both sources of concern to EPA and those of purely local concern (e.g., odor problems not regulated under the Clean Air Act). EPA, in recognition of the fundamental role of the State, supports State compliance monitoring activities as part of its air grants to States under Section 105 of the Clean Air Act and through its training, workshops, and technical assistance activities.

The sources of primary concern to EPA have traditionally been Class A SIP sources, NSPS sources, and NESHAPs sources. This totals approximately 30,000 sources nationwide. One issue presently under consideration is whether EPA should focus on VOC sources even smaller than those meeting the Class A definition because of the significant contribution to ozone nonattainment made by large numbers of small VOC sources. Once an improved data base is established (see Section IX B), a different cut point might be chosen for VOC sources and a strategy might be evolved for some selective monitoring of sources even below that level.

The basic compliance monitoring technique used by the State is an inspection, an onsite visit to the source. Inspections can be of varying thoroughness. A typical inspection does not involve an actual stack test. Stack tests, when required, are generally conducted by the source with a government observer present. Typically, stack tests are required for an initial demonstration of compliance after installation of controls by an existing source or start-up of a new source. Thereafter, except for certain large sources such as utilities where routine stack testing

may be required, stack tests are typically required ~~only if~~ a violation of mass emission limits is suspected and a source is likely to contest the determination of violation.

A properly conducted inspection can involve a thorough analysis of source and control device operating characteristics and relevant operating parameters. Fuel samples for SO₂ evaluations and VOC samples for volatiles analysis may be taken. However, inspections too often focus primarily on visible emissions since gaseous pollutants such as SO₂ and NO_x can be more difficult to evaluate without stack testing.

A significant problem in the air program has been the limited availability of continuous emission monitoring technology. While technology for monitoring opacity has long been available and generally accepted, technology for continuous monitoring of gaseous emissions has lagged behind. However, major improvements in the reliability and accuracy of continuous emission monitoring equipment has occurred in recent years, and the Agency should make wider use of it in the future, both in establishing monitoring, reporting, and recordkeeping requirements in NSPS standards and in assuring continuous compliance by major SIP sources. At the moment, however, its use in the air program is limited. (See the discussion on continuous emission monitoring in Part F of this section.)

To assist the States in planning their inspection programs, EPA has issued guidance on the recommended frequency with which various classes of sources should be inspected. This recommended inspection frequency guidance is to form the basis of the EPA/State agreement on State compliance assurance activities negotiated as part of the grants award process. A substantial revision to the present inspection frequency guidance, intended to provide the States greater flexibility in addressing their most significant problems, is contained in Part C of this section.

Where States have not inspected a source within the defined period, Regional Offices have the responsibility of either getting the State to perform the inspection or performing the inspection itself. Regional Offices also have the responsibility of inspecting sources for which EPA has primacy (primarily non-delegated NSPS and NESHAPs sources).

It should be noted that the ability of the Agency to use a contractor as an Agency representative for purposes of conducting an inspection under Section 114 of the Clean Air Act has been the subject of considerable litigation. Courts of Appeal have split on the issue, with the Sixth and Tenth Circuits holding that the Agency cannot demand entry by contractors under Section 114 and the Ninth Circuit holding that it can. The issue is presently before the Supreme Court, which has granted certiorari.

Due to a combination of factors including the uncertain legal climate, antipathy to contractors by some States, and declining contract funds, EPA has been reducing the overall role of contractors in its program. They are likely to remain a necessary component for some time, however, and it is important that the right to use contractors be preserved.

One further point should be noted relative to inspections. They are often announced well in advance. The logic of this for a stack test is clear; stack tests can require significant site preparation. The logic for routine inspections, however, is far less clear. Reasons often cited are that it reduces the confrontational atmosphere and minimizes the likelihood that inspectors will travel at great time and expense to a facility which turns out not to be operating that day. However, by announcing the inspection in advance, sources are given the opportunity of optimizing their control equipment. While this admittedly has some air quality benefit, it may be more than outweighed by the emissions from sources not paying particularly close attention to their operation and maintenance because they know they are not in jeopardy of an inspection because they haven't been notified that one is to be conducted. As part of the exploration of options for dealing with the continuous compliance problem (see Section IX C), a re-examination of the issue of announced versus unannounced inspections has been initiated.

Before turning to EPA's program on auditing State compliance assurance programs, it might be beneficial to conclude this overview section by reiterating the respective roles of EPA's Headquarters and Regional Offices. Headquarters is responsible for:

- Developing policies, priorities, and budget for the compliance and enforcement program.
- Providing technical assistance, either directly or through workshops and manuals.
- Managing the operation of CDS.
- Tracking and evaluating progress in meeting national goals and priorities.
- Reporting to upper management on progress in meeting program goals and providing recommendations for improvement.

Regional Offices are responsible for:

- Establishing and maintaining effective coordinated working relationships with State and local agencies.
- Communicating national policy, priorities, and goals to State and local agencies.
- Utilizing the grants award process to assure that State and local programs and Federal expenditures are directed toward meeting national goals and priorities as well as local goals.
- Establishing programs of review and analysis to assure that State and local agencies are meeting commitments, goals, and priorities.
- Assuring the receipt and timely entry into CDS of compliance and enforcement action data.
- Operating a program to assure quality information and oversight.
- Operating a program for direct compliance efforts where EPA has primacy or the States are unwilling or unable to assume lead responsibility.

B. EPA Audit Program

EPA's overview of State compliance monitoring programs traditionally evolved in the form of an inspection program where State-reported compliance information was independently verified by EPA (or its contractor). In the past, the Agency would inspect from five to ten percent of the sources reported by the States as being in compliance to verify their compliance status. While this program generally accomplished its objectives, it was very

resource-intensive, occasionally caused disagreements with the States over use of contractor personnel in this program, and often provided insufficient feedback to the States on their performance. For these reasons, EPA decided in mid-1982 to move away from this approach.

Since mid-1982, EPA has been working with STAPPA and ALAPCO, the associations representing State and local air pollution control officials, in developing a National Air Audit System. One element of this audit system is the compliance assurance activities of a State program. The objectives of this element are:

- ° To provide a basis for EPA to formulate a judgment as to the overall quality and effectiveness of the State and local agencies' compliance and enforcement procedures and activities.
- ° To provide a basis for EPA to make timely decisions as to the necessity and appropriateness of direct Federal enforcement against individual sources.
- ° To provide a basis for EPA to know immediately or to be able to ascertain quickly the following:
 - (a) general compliance level for all sources or classes of sources, in the State as a whole or in designated areas;
 - (b) the compliance status of any specific source; and
 - (c) the compliance activity directed towards resolving instances of noncompliance.
- ° To promote effective working relationships between EPA, the State, and local agencies to assure consistent application of regulations and policies.
- ° To provide a basis for determining whether additional support to the State program, such as through workshops or other technical assistance activities, would be beneficial.

A document detailing the nature of the National Air Audit System should be agreed upon by early in the fall of 1983. Elements of the compliance assurance portion of the audit program are expected to include the following:

- EPA will ask State and local agencies to review annually the data summaries that EPA has in CDS to confirm that the data agree with their information about the sources.
- EPA will spot check State source files annually to confirm that the data in State files agree with the data that EPA has on the source.
- EPA will determine the adequacy of the documentation found in State files to support the reported compliance status of the source.
- EPA will determine through examining State files the adherence of the State to proper procedures for determining the compliance of sources.

In addition, EPA will select through a neutral inspection scheme from 2-5% of the sources of the State inventory of concern to EPA. Each Regional Office will determine the appropriate level for each of its States after consultations with the State. EPA will notify the State at least 30 days before it inspects a source so that back-to-back EPA and State inspections can be avoided and so that States may participate in the inspection. In this manner, the oversight inspection can be used to improve EPA's knowledge of the sources it tracks, improve the general abilities and understanding of the State inspector, and present a stronger Federal presence to the regulated community.

Note that the foregoing discussion reflects deliberations to date by the EPA/STAPPA/ALAPCO workgroup on the compliance assurance aspects of the National Air Audit System. That is the appropriate vehicle for defining this program and this strategy is not intended in any way to detract from or supersede that effort.

C. Inspection Frequency -- Revised Guidance

A fundamental element of the Stationary Source Air Compliance Program is the periodic visit by governmental air compliance personnel to significant regulated sources of air pollution. Historically, technical and cost considerations have limited the use of continuous emission monitoring technology in

air pollution regulation, making actual site inspections the primary means by which the ability of sources to comply with applicable requirements is determined. The primary responsibility for conducting these inspections is at the State and local level, with EPA grant and technical support.

Initially, EPA air inspection guidance to the States provided for, at a minimum, an annual inspection of any source having an uncontrolled emission rate equal to or exceeding 100 tons per year of any regulated pollutant. However, in light of the Alabama Power decision (636 F.2d 323, D.C. Cir., December 14, 1979) which altered the definition of a "major source" under the Clean Air Act, revised inspection frequency guidance was issued in March 1980. That guidance specified at least annual inspections of NSPS, NESHAPs, and Class A1 SIP sources and at least biennial inspections of Class A2 SIP sources.

However, given the limited availability of resources at the Federal and State level and the increasing complexity of the air pollution program, it appears that the current guidance may not be sufficiently flexible to permit States to address properly their most significant problems. Therefore, the Agency is establishing revised inspection frequency guidance as outlined below. Please note that the revised guidance does not address EPA oversight activities, which are being addressed separately. In addition, this guidance establishes only the minimum acceptable program. States are strongly encouraged to go beyond these minimums to the extent resources allow.

REVISED GUIDANCE

The inspection is the primary compliance assurance method presently available in the air program for validating source performance. Therefore, EPA believes it is imperative that an inspection program be implemented in all States. The following guidance on the expected frequency of inspections is intended to balance the need for a nationally-uniform data base to enable an evaluation of the effectiveness of the program with the needs of State and local agencies to make optimal use of their limited resources to address the varied and unique air quality problems faced by each State and locality.

The frequency of such an inspection shall be determined by which requirements are applicable (SIP, NSPS, NESHAPs) and, for SIP sources, by whether the source is a Class A1 or Class A2 source. It is imperative that all sources be classified by SIP class (if applicable) and applicable air program (SIP, NSPS, NESHAPs) and that these data be duly recorded into EPA's Compliance Data System (CDS).

DEFINITION OF AN INSPECTION AND USE OF CONTINUOUS EMISSION MONITORING (CEM) DATA AS AN ALTERNATIVE

For the purpose of this guidance, a State inspection shall mean an onsite visit to an operating source to assess compliance with applicable State and Federal air pollution control requirements.

An alternative for satisfying inspection frequency guidance by the State for any SIP or NSPS source is the use of continuous emission monitoring ~~Excess Emission Reporting (EER)~~ on a quarterly basis in lieu of periodic inspection requirements. An EER is a suitable alternative for a source utilizing continuous emission monitoring under the following conditions:

- The data reported in the EER to assess compliance are at least comparable to the data which would have been obtained during an onsite inspection to assess compliance.
- As part of the State's CEM quality assurance/quality control program, the monitor must be quantitatively audited at least every three years.
- EERs must be input into the CEM subset of CDS.
- The intended use of the EER alternative to onsite inspections must be agreed upon between the State and the EPA Regional Office.
- The Stationary Source Compliance Division must receive the names and CDS numbers of all Class A1 SIP and NSPS sources covered by the EER alternative to adjust properly the data base for subsequent analysis and reporting.

- The State must conduct an onsite inspection of all sources being tracked under the EER alternative at least once every three years. (This could be conducted in conjunction with the quantitative audit previously described.)

It is EPA's belief that continuous emission monitoring should eventually be fully integrated with inspections and other compliance determination methods into a total compliance monitoring system. The use of CEM data under the circumstances described in this section is a step in that direction. As more experience is obtained, it is envisioned that this guidance will be revised accordingly.

For sources for which compliance is based solely on the characteristics of the fuel burned (typically percentage of sulfur in the fuel), an inspection of the fuel supplier's records and a sampling of the supplier's product can be substituted for an onsite inspection of the source.

CLASS A1 SIP SOURCES

All operating Class A1 SIP sources regulated under the Clean Air Act shall be inspected annually. Annually is construed to mean at least one onsite visit is made to each such source between October and September, corresponding to the Federal fiscal year.

An exception to the annual inspection requirement is permitted if the EPA Regional Office and State agree that a source is constrained by an operating permit or is seasonal in nature such that it would be inappropriate to apply an annual inspection requirement to this source. All such excepted sources shall be inspected at least once every five years. Categories such as grain elevators and alfalfa dehydrators are examples of possible exceptions. Exceptions should be communicated by the Regional Office to EPA's Stationary Source Compliance Division (SSCD) at the start of the inspection year so that the data base can be properly adjusted for subsequent analysis and reporting. Regional Offices are encouraged to discuss with SSCD any novel issues which may arise in their discussions with their States.

CLASS A2 SIP SOURCES

Except as noted below, operating Class A2 SIP sources regulated under the Clean Air Act shall be inspected biennially. However, a State may propose a modified inspection scheme to its EPA Regional Office which represents at least the same level of resource commitment but which the State believes is more responsive to the needs of its air quality program. This can consist of any combination of additional Class A1 SIP inspections, Class A2 SIP inspections, and inspections of other sources regulated under the Clean Air Act. This could include Class B SIP sources in those areas where they are particularly significant. EPA Regional Offices and their States are free to establish whatever approach is best suited to their situation as long as the following conditions are met:

- SSCD must receive informational copies of such agreements at the start of each fiscal year.
- A method of monitoring the agreement must be in place and data reporting requirements clearly established.
- The State must demonstrate that the modified approach is based on at least the same resource expenditure as would be required to inspect all Class A2 SIP sources on a biennial basis.
- All operating Class A2 SIP sources must be inspected at least once every five years.

NSPS SOURCES

Any operating NSPS-subject source which is also a Class A1 SIP source shall be inspected at least once every Federal fiscal year. All other NSPS sources shall be treated as a Class A2 SIP source.

NESHAPS SOURCES

All operating nontransitory NESHAPS-subject sources shall be inspected at least once every Federal fiscal year.

D. Inspection Frequency -- Present Experience

To identify whether sources were being inspected by States in accordance with EPA's recommended inspection frequency guidance, a new commitment was added to the Agency's Management Accountability System for FY 1983. This commitment evaluated the degree of compliance with the inspection frequency guidance for SIP sources by the States, aggregated as national and Regional percentages.

The first quarter's data (i.e., that reported on December 31, 1982) showed disappointingly low figures, ranging between a high of 90% and a low of 13% for Class A1 sources, with a national average of 48%. Investigation of the reasons for these numbers lead to the conclusion that it was partly a data entry problem and partly a problem with inspections not being performed as required. By working to resolve the data problems, the national average had increased by the end of FY 1983 to 76%, with the range being from 44% to 100%. Regional Offices have been directed to work with those States where problems may still exist to ensure compliance with the guidance using, if necessary, the grant mechanism as a vehicle for accomplishing this. Initial feedback on the response to this issue from Regional Offices and States has been encouraging and tracking of this element will continue (in slightly modified form) in the FY 1984 Management Accountability System.

E. Inspection Quality and Complexity

Previous discussion has focused primarily on the frequency of inspection of various sources. There are two other elements which must be considered in conjunction with frequency, the quality of the inspection and the degree of complexity of the inspection.

The need for quality in conducting inspections is self-evident. EPA has been focusing on the quality issue largely through its efforts to upgrade the technical capacity of State and Regional inspector staffs. A greatly expanded workshop program and issuance of technical manuals are the two primary ways in which this is accomplished. The joint inspections conducted as part of the audit program proposed in Part B of this section should serve as

another effective vehicle for training. The audit itself will be useful in identifying areas of weakness which need to be remedied and thus provide for more focused EPA technical assistance efforts.

A second element is the tailoring of the inspection to reflect the degree of complexity of the source, its control equipment, and its compliance history. This is an important element of targeting inspection resources.

It is recognized that many State and local agencies already consider these factors both in setting inspection frequencies and in determining the nature of the inspection to be conducted. However, to assess the benefits of this approach in a more structured way, EPA conducted a pilot study in cooperation with the Commonwealth of Virginia in one region of the State.

An important objective of the Virginia study was to evaluate and field test inspection procedures that would utilize more effectively their current manpower to ensure continuing compliance of sources having the greatest impact on air quality. Sources (Class A only) were identified for future inspections based on a targeting plan using the following source information, which was obtained by file and permit reviews and past field inspection experience:

1. Control equipment type
2. Type of source and emissions characteristics
3. Source size
4. Geographic location
5. Frequency of malfunction

Based on these source-specific data, the frequency and level of inspection to be conducted at each source was determined. As a result, there were 5 recommended levels of inspection.

Level 0

- Conducted at uncontrolled sources basically for data collection and baselining operational performance

- Used for petroleum storage facilities, paint spray booths, drying ovens, uncontrolled greasing facilities

Level 1

- Limited to the evaluation of visible emissions from process vents, fuel combustion sources, incinerators, and fugitive emission sources
- Used periodically in conjunction with more complex inspection levels to ensure continuing compliance with visible emissions requirements
- Used for gas-fired and oil-fired boilers, tenter frames, incinerators, and fugitive emission sources such as conveyor transfer points and truck loadout facilities

Level 2

- Monitored source-maintained records on control device and process operating conditions in addition to visible emission observations
- Reviewed such process items as feed rates, temperatures, raw material compositions, and process rates, and such control equipment performance parameters as water flow rates, water pressure, static pressure drop, and ESP power levels
- Used records to determine any significant change since the last inspection (where compliance was demonstrated) or any process operations outside normal or permitted conditions

Level 3

- Designed to provide a detailed engineering analysis of source compliance by actually measuring specific operating parameters
- Reduced and used control equipment operating parameters such as pressure drop, flue gas conditions, oxygen level, water flow rates, and gas stream temperature to calculate flue gas volume, superficial velocity, specific collection area, inlet velocity, etc.

- Used results of engineering analysis to determine if the source is:
 - a. operating within accepted design conditions for the specific control device
 - b. experiencing O&M problems that result in less than continuing compliance

Level 4

- Conducted along with a compliance stack test (by approved reference methods)
- Monitored all process and control device operating parameters during a stack test for use during future Level 3 inspections
- Permitted the establishment of baseline conditions at controlled sources

The purpose of the increasing level of inspection is to concentrate the resources on those sources that have the greatest potential to exceed the emission limits. Initial results of the Level 3 inspection may indicate that specific sources are not experiencing deficiencies in performance and therefore do not warrant a higher level of inspection. In these cases, the frequency or level of inspection may be adjusted downward consistent with the results of the Level 3 inspection.

Prior to this study, the Virginia inspectors were generally conducting only Level 1-type inspections using visible emissions as the sole indicator of compliance. As a result, it was difficult to detect potential violations of the mass emission limitations or to detect potential O&M problems that could affect the overall performance of the control equipment.

The targeting plan in the Virginia study initially called for a Level 3 inspection to be conducted at any source with uncontrolled emissions greater than 25 tons/year and a Level 2 inspection at any source with uncontrolled emissions greater than 5 tons/year at normal operation, unless the source emitted lead or hazardous air pollutants. As it evolved, it became evident that the number of inspections had to be

adjusted downward due to resource constraints and various special circumstances associated with individual inspectors. Nevertheless, during the application of the inspection levels approach, a number of heretofore undetected violations were discovered, as discussed in Section IX C of this strategy. By using a number of parameters extending beyond visible emissions (Level 1) and performing more detailed inspections of control devices, a better assessment of noncompliance could be made, with the cause of noncompliance often specifically identified by the inspector.

A final report of the initial phase of this pilot effort will soon be available. The concept is being further evaluated to assess its longer-term effectiveness. If it continues to prove effective, it will be tested statewide in Virginia. If it proves effective on a statewide basis, consideration will be given to providing support to other States which would like EPA assistance in initiating a comparable program.

F. Use of Continuous Emission Monitoring Data

This section addresses EPA's use of Continuous Emission Monitoring (CEM) data in enforcement of NSPS and SIP emission and operating and maintenance (O&M) provisions and in other general EPA activities.

Instances in which instrumental CEMs (conforming with 40 CFR 60 Appendix B) or manual measurements (Reference Method 6B) have been promulgated or approved by the Agency as official methods to determine source compliance with the applicable emission limitations are presently quite limited. CEMs have been specifically prescribed as the method to establish emission violations for one or more pollutants in the following instances:

- NSPS electric utility steam generating units, regulated by 40 CFR Part 60 Subpart Da;
- NSPS primary nonferrous smelters, regulated by 40 CFR Part 60 Subparts P, Q, and R;
- NSPS stationary gas turbines, regulated by 40 CFR Part 60 Subpart GG;
- various sources regulated by permits, orders, or consent decrees in which CEM has been specifically designated as the compliance test method;

- various types of sources which are regulated by SIPs (e.g., Nevada SIP, 40 CFR §52.1475(d)) where the State has specified CEM as the compliance test method.

Legal factors currently affecting the ability of the Agency to use CEM data for direct enforcement are discussed at some length in the memorandum of August 12, 1982 from Kathleen Bennett to the Air Division Directors (Attachment 3).

However, CEMs can provide the Agency with useful data for circumstances other than those delineated above. Sources subject to CEM requirements are generally required to submit periodic reports. NSPS regulations, for example, require quarterly submission of Excess Emission Reports (EER's). These reports document, for the benefit of both the control agency and the source, the source's performance with respect to proper operation and maintenance and sustained emissions reduction. The EER contains information on excursions above the relevant standard (excess emissions), causal factors, and corrective/preventive actions.

Acquisition, evaluation and use of CEM data is an important component of a feedback system which can be of substantial benefit to both sources and agencies. Specifically, EER data can be used:

For Sources

- to help ensure upper management attention through the formal requirement for source submittal of a summary of excursions. This increases the likelihood of timely attention and reduces the risk of sanctions; and
- as a tool in preventive maintenance/risk management/cost control programs, to flag deteriorating process or control equipment performance. In cases such as fuel burning, CEM data can be used to optimize continually the combustion process and control system performance, thus saving money and preventing pollution at the same time.

For the Control Agency

- as a screening tool, to identify sources experiencing frequent or continual excursions. Such sources can be subjected to additional attention in the form of phone calls, inspections, etc., rather than allocating scarce inspection resources largely at random;
- in addition to identifying problem sources, to help pinpoint specific source components for special attention during an inspection;
- to document the severity (e.g., duration, magnitude, and frequency) of a source's excess emissions. For example, EEP data can provide supporting evidence of the long-term nature of violations, negating source claims of isolated problems;
- to document that a compliance test was performed during "non-representative" operating conditions;
- as support for issuing an NOV;
- to establish a data base in the development of Agency policies and strategies (e.g., acid rain strategies);
- as the basis for assessing "good air pollution control practices" (e.g., FGD performance);
- as an alternative to agency inspections of sources as delineated in the Agency's Inspection Frequency Guidance in Part C of this section; and
- to monitor the emissions and performance of a source subject to specific permit, consent decree, or administrative order requirements.

For Both Control Agencies and Sources

- to provide a quantitative basis for agency/industry dialogue in identifying and resolving emission reduction problems; and
- to provide baseline data for development of profiles and norms of long-term source performance.

Many of the concerns which led to industry's initial reluctance to use CEMs (or reluctance by EPA to require use of CEMs), or which may have resulted from bad experiences with CEMs, are no longer valid. Industry and agency familiarity with the operation of continuous emission monitoring equipment and standardization of quality assurance/quality control and system audits have improved the acceptance of the technology substantially in recent years. Accompanying this acceptance of CEM technology has been the development of simpler and less expensive technologies, such as Method 6B bubblers. The traditional limiting factors of reliability and cost considerations have been to some extent replaced with different limiting factors, misinformation and inertia. The Agency needs to recognize and overcome these limitations and expand greatly the role of CEM data in the air program.

EPA has been working with State and local agencies and the utility industry to improve performance of CEMs and the data base of operational information. Some of these efforts are outlined in Section X concerning Compliance Promotion. This will be of particular importance as sources subject to Subpart Da, which utilizes CEM as a compliance method, come on line. In time, with the support of the regulatory agencies and industry, the misinformation and inertia problems may start to be resolved.

A very important effort presently under way is a pilot project which EPA is sponsoring in conjunction with the States of Iowa and Missouri. The pilot focuses on demonstrating the potential effectiveness of a well-run program to utilize CEM data and fully integrate it into the compliance determination process. While the work is still in its early stages, the reaction of both the States and sources involved has been very encouraging. Hopefully this study, when completed in approximately another year, will be useful in demonstrating to other States and industry that similar efforts can be rewarded with a better understanding of and ability to control emissions from the day-to-day operation of its sources.

In any event, EPA can hardly expect others to take a fresh look at the use of CEMs unless it is willing to do so itself. The Agency should increase its reliance upon CEM data in its compliance and surveillance programs and consider, wherever possible, some form of continuous monitoring requirement in

its NSPS and NESHAPS standards as they are promulgated or revised. It would be most effective if CEM were specified as the compliance method or as an alternate compliance method.

This would require a careful consideration of what data are really required, how frequently they are needed, what they will be utilized for, and the realistic capability and willingness of the receiving agency to utilize the data. (There is no point requiring more data which will sit unread in a corner.) This leads to the further need to identify what additional information is needed to allow effective use of these data, such as improved information on what reasonably can be expected of control equipment in terms of performance and reliability.

In summary, receipt and use of CEM data can assist agencies and industry to discharge more effectively their compliance monitoring responsibilities. In particular, it allows agencies to become more sophisticated in allocating agency resources and attention. Visible and timely use of such data also sends a signal to sources that the agency is serious about continuous compliance.

Many of the uses of CEM data previously identified can be effectuated without rulemaking through the Agency's authority in Section 114. It is recommended that Regional Offices increase their use of available CEM data to support the compliance monitoring and enforcement programs in the ways previously discussed. In addition, Regional Offices should begin to identify those sources ~~presently without CEMs~~ but for which the use of CEMs could be fruitful. This could include such sources as long-term violators, and large SO₂ emitters, particularly in nonattainment areas. For these sources, the Agency should begin requiring CEM installation, quality assurance testing, recordkeeping, and periodic reporting of relevant CEM data to EPA. In addition, the Agency should broaden its use of CEMs in its permits, consent decrees, and administrative orders.

Some Regions and States are further along than others in terms of willingness and ability to use CEM data. Specific efforts will be initiated as part of this strategy to work with the lead Regions to formalize and enhance their procedures on EER review and use for subsequent inclusion in Agency-wide guidance.

VIII. Responding to Noncompliance Problems

A. Objectives

The objectives of responding to noncompliance problems are to ensure that the problem is corrected quickly, to deter similar problems from arising, to see that the law is applied equitably, and to punish misconduct by source owners and operators.

B. Priority Target Areas

The current system of priorities for responding to noncompliance problems is primarily delineated by two memoranda. The first is the December 29, 1981 memorandum from Kathleen Bennett to the Regional Administrators, entitled "EPA Accountability System-OANR Policy Guidance". In an appendix to that memorandum (a copy of which is included in Attachment 2), the term "significant violator" is defined, and the statement is made that these significant violators should be addressed. (This policy was elaborated upon in a memorandum of June 24, 1982, to the Regional Offices entitled "Significant Violators" (Attachment 4).) Roughly speaking, the sources to be given a high priority as "significant violators" are those violating hazardous air pollutant standards (NESHAPS), major source State Implementation Plan (SIP) violators affecting nonattainment areas, and violators of new source requirements (NSPS and requirements of Parts C and D of the Act.)

The purpose of establishing the significant violator program was to define the Agency's highest priority sources for enforcement action, other than emergency actions. In light of the special importance attached to these sources, Regional Offices are required to report on a quarterly basis on the status of efforts made by themselves and their States on resolution of these violators.

The list of significant violators is obviously dynamic, with sources being added and deleted as violations are discovered and resolved. The initial list established in March 1982 contained 482 sources.

(NO GTR CIP/PP PLANTS)

By the December 31, 1982 report, the number of significant violators had been reduced to 303. Starting with the March 31, 1983 report, the number began to increase again. ~~This reflected the fact that many~~
~~violators were subject to December 31, 1982 compliance~~
~~extensions.~~ As that date passed and as violations are confirmed, those violators meeting the significant violator criteria are added. As EPA continues to improve its information on the identity and compliance status of VOC sources, it is likely that the list will continue to grow before enforcement efforts begin to turn this around.

It is generally accepted within the Agency that the significant violator program forms a sound base for the program. It is expected that this concept will continue essentially as it is for at least the next two years.

The second major priority-setting memorandum is the Agency's Post-1982 Enforcement Policy, dated September 20, 1982 (Attachment 5). This policy provides more detail for addressing SIP violators in primary nonattainment areas after December 31, 1982. (The policy does not apply when the attainment deadline is after 1982, such as in areas with Section 172(a)(2) extensions.)

In particular, the policy states that EPA or States should seek shutdown of sources subject to the policy unless:

- (1) The public interest in continued operation of the source outweighs the environmental cost of the additional period of noncompliance and;
- (2) The source has sufficient funds to comply expeditiously.

If the Agency decides not to seek shutdown, it may enter stipulations and not oppose a request to the court to exercise its equitable power to enter an order establishing a compliance schedule. Such an order should contain:

- (1) an expeditious schedule with increments of progress to comply with the SIP, or RACT if no Part D plan is in force where one is required;
- (2) interim emission limitations and controls to the extent practicable;
- (3) monitoring and reporting requirements;
- (4) stipulated penalties, at least for violations of the compliance schedule and interim controls;
- (5) provisions preventing increases of emissions;
- (6) payment of a significant cash penalty, with total civil penalties reflecting the criteria of the Civil Penalty Policy;
- (7) an express reservation of the right to seek injunctive relief, including shutdown, if the source does not comply with the order; and
- (8) consistency with the Agency's Limited Life Facilities Policy with respect to sources being shut down rather than controlled.

Further guidance on the policy was issued on January 12, 1983, in a memorandum from Kathleen Bennett and Robert Perry to the Regional Administrators and Regional Counsels (Attachment 6). This guidance clarified the policy in a number of ways, most importantly in providing further detail on criteria to be applied in review of State actions for possible overfiling. This supplemental guidance also directed the Regional Offices to issue Notices of Violation to all sources to which the policy applies, including State-lead cases, so that EPA will be in a position to act quickly if State action ultimately proves inadequate.

Since the policy was established, EPA has been working closely with States to assure its successful implementation. A high proportion of the sources which were determined to be subject to the policy have either come into compliance, been put on a

compliance schedule, or have an enforcement action pending against them. Of course, as with the significant violator program, new violators are continually being identified so that the overall number of identified violators is not necessarily decreasing. In fact, ~~it is likely to be increasing as VOC compliance inventories and data become more complete.~~

Since January 1983, EPA Headquarters has been tracking on a source-specific basis initial implementation of the Post-1982 Enforcement Policy. To do this in a feasible manner, it is using the list of violators identified as of the time the policy first took effect, i.e., January 1, 1983. It has not attempted to keep a running list (adding each new violator as it is discovered). It is important to emphasize, however, that such data must be available at the State level and reported to EPA's Regional Offices in accordance with established reporting requirements. Sources subject to the policy must be addressed, whether by EPA or the State, consistent with the policy irrespective of whether the source happens to be on the list Headquarters is tracking.

Headquarters tracking of Post-1982 sources as a separate exercise is considered worthwhile only for about the first year of the implementation of the policy. Its purpose is to assure that the policy is understood and integrated into consideration of appropriate enforcement responses. For the long-term, it is preferable to eliminate separate Headquarters tracking and to rely on the significant violator program for priority-setting and tracking since, while it includes the most significant Post-1982 policy sources, it includes other important categories of sources (e.g., NSPS and NESHAPs) as well.

Because of the importance of the significant violator and Post-1982 Enforcement Policy concepts in the enforcement program and because they are different yet partially overlapping, it would be worthwhile to summarize the main points of each for comparison purposes.

Significant Violator List

- A priority setting mechanism to assist the Regions and States in targeting their resources to achieve the greatest environmental benefit;

- A defined universe used for tracking Regional program performance in the Management Accountability System;
- Sources are not subject to any particular substantive Agency policies purely based on their status as significant violators. Sources on the list may be subject to any of a number of substantive Agency policies;
- Includes NSPS, NESHAPs and certain PSD violators;
- Includes SIP sources in secondary nonattainment areas as well as primary nonattainment areas; and
- Generally includes only Class A1 SIP violators (in nonattainment areas).

Post-1982 Enforcement Policy List

- The sources on the Post-1982 Enforcement Policy list are those sources fitting the defined criteria established in the September 20, 1982 memo from Anne Gorsuch to the Regional Administrators and subject to the particular substantive and procedural elements of that policy.
- Affects only SIP sources in primary nonattainment areas (other than extension areas).
- Includes Class A2 sources as well as Class A1 sources.

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Thus, some degree of overlap does exist between sources on the significant violator list used for MAS tracking and the list of sources subject to the requirements of the Agency's Post-1982 Enforcement Policy. However, they are distinct universes that have been established to serve different purposes.

~~There will also be consideration of at least certain classes of violators, irrespective of whether they meet the present significant violator definition.~~ This includes sources smaller than the Class A1 definition in nonattainment areas to the extent that resources permit.

*Watch out,
Columbus*

Certain VOC sources are of concern not only because of their contribution to ozone levels, but also because the constituents of their VOC emissions are toxic in nature. Previous efforts have focused on VOC emissions only to the extent that they impact attainment of ozone ambient standards. In FY 1985, efforts will be substantially increased to enforce VOC control requirements even in areas which are projected to be attainment or unclassified relative to the ozone NAAQS, where the enforcement of VOC control requirements can yield significant benefits through reduction in air toxics. The special problems associated with VOC sources will be discussed at greater length in Section IX B.

In addition to the priorities set by the documents cited above, several other aspects are important to note. The highest priority should be given to any emergency episode which may arise as defined in Section 303 of the Act. Expanded guidance for response under Section 303 was sent to Regional Offices on September 15, 1983 and is included as Attachment 7. The essential point to note about this guidance is that it urges a broader consideration of the use of Section 303 authority. In the 1970's, emergency episodes (and thus use of Section 303) were viewed almost entirely in the context of high levels of criteria pollutants under adverse meteorological conditions. This occurs only infrequently these days, at least for pollutants associated primarily with stationary sources. However, the serious threats presented to public health by various air toxic substances have become much more visible. The purpose of the guidance is to foster a broader awareness of the possible use of Section 303 as a mechanism to address, in proper circumstances, the dangers presented by such emissions.

watch out

Similarly, while already covered as "significant violators", special note should be made of enforcement against violations of hazardous air pollutant standards. This will consist primarily of continued enforcement of vinyl chloride standards, enforcement of asbestos demolition standards, and initial implementation (enforcement or waiver issuance) of newly-promulgated NESHAPs standards. Enforcement of NESHAPs standards is discussed at some length in Section IX A.

Finally, priority should be given to addressing violations of Section 114, which sets out the Agency's information-gathering authority, because that authority is so basic to EPA's ability to set and enforce the substantive requirements called for by the Act. Similar high priority should be assigned by EPA Regional Offices to violators of EPA orders or Federal judicial decrees.

Note that these priorities reflect considerations at the national level. Obviously, conditions at the State and local level vary widely. The listing of these national priorities should in no way be interpreted as condoning a failure to address other important air quality problems, such as violating sources in attainment areas, to the extent consistent with other priorities and available resources.

C. Informal Responses

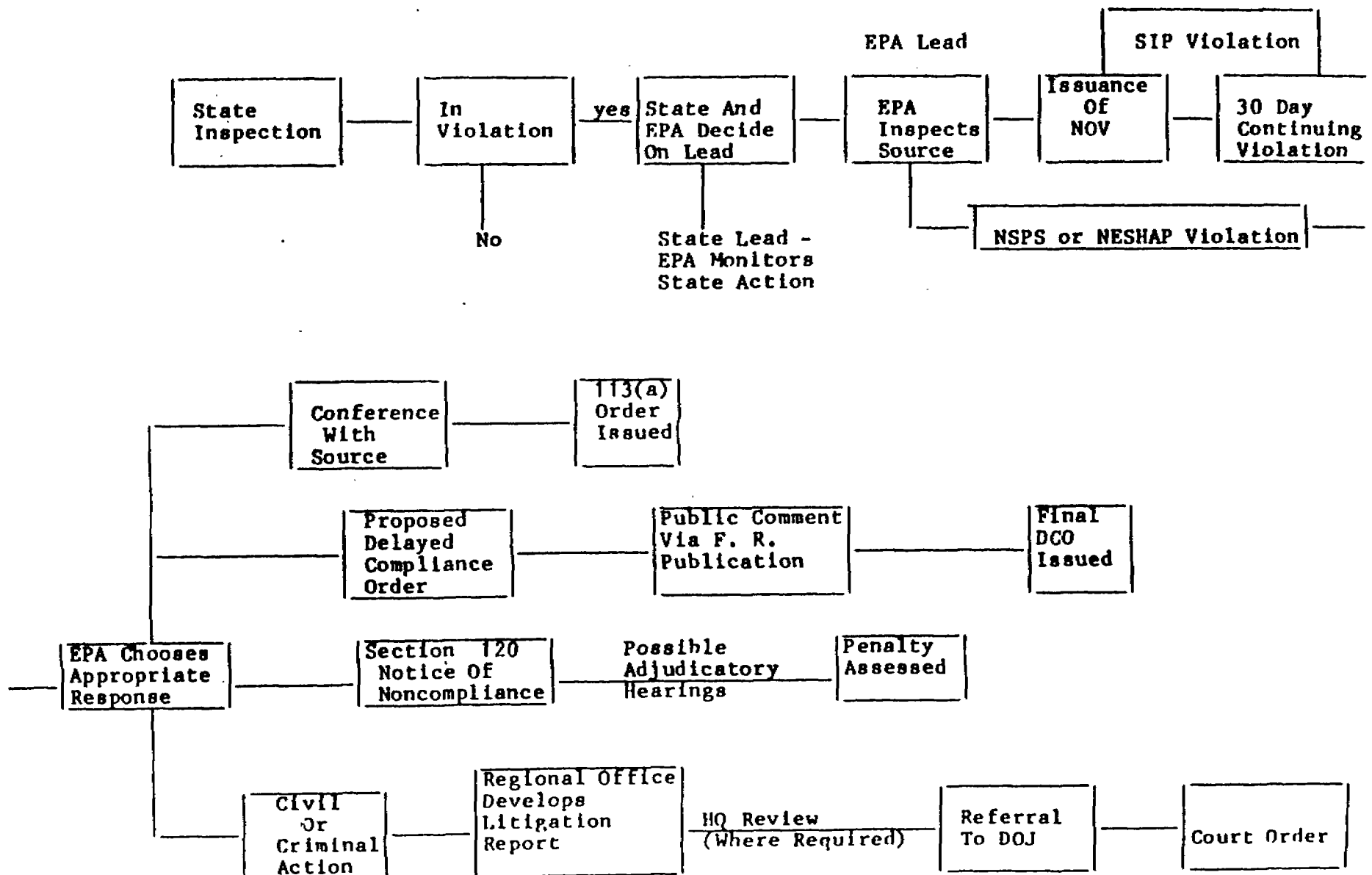
When EPA or a State first learns of a noncompliance problem, it may be possible to remedy the problem by informal discussions with the source which lead to a quick (generally within 30 days), complete resolution. If this is not possible, however, a more formal response should be considered. In addition, if the violation appears to be part of a continual pattern of intermittent violation, it may be preferable to document the violation with a Notice of Violation even if quickly remedied. This may be taken more seriously by the source, help focus attention on the source in inspection targeting, and lay the foundation for a more aggressive response to any subsequent violations.

D. Formal Responses

Diagram #1 provides a simplified flow diagram of the formal enforcement process. Normally, the State or local agency will take the lead in addressing problems of noncompliance. If a State takes the lead, EPA should understand what action the State is contemplating and the timetable for that action so it can make a reasoned judgment on deferral to the State. This understanding should be documented in the form of a State action plan. This could be

Page 1

Stationary Source Compliance Process



*Review for our
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to get at times*

prepared either by the State or by EPA with a State review for accuracy. The Regional Office should then get periodic reports on the progress of that action so that, if progress is not timely, a decision can be made to reconsider the deferral.

In some instances, it may be advisable for the Regional Office to begin case development activities even while the State maintains the lead on a case. In fact, this is specifically required for sources subject to the Post-1982 Enforcement Policy. The purpose of this is to allow EPA to act much more quickly if it ever had to take the lead on the case. These activities would, of course, have to be coordinated with the State in a way that makes it clear to both the source and the State that EPA regards the State as maintaining the primary responsibility and is continuing to look to the State to resolve the matter.

When the EPA Regional Office finds that the State or local agency has not effectively addressed a violating source and will not be proceeding in a timely and effective manner, it should initiate a Federal enforcement action against the noncomplying source. In evaluating a State action, several factors should be considered:

- (1) If the source is in compliance with a schedule contained in a State decree order, EPA would examine the expeditiousness of the compliance schedule (including the incremental dates in the schedule). EPA would also examine the past compliance history of the source and the record of State enforcement to determine whether the final compliance date in the schedule is likely to be met or if it is simply a "moving target", and likely to be revised.
- (2) If the source is in violation and no schedule has been established or, though a schedule exists, the source is not meeting it, EPA would examine both the schedule (if one exists) and what the State is doing to remedy the situation. Any violation extending more than six

months without effective action would be of particular concern. EPA would look at the past compliance history of the source and the record of State enforcement actions as an indication of whether the State is likely to resolve the problem effectively.

- (3) In cases where circumstances indicate that the State will not be able to effect compliance, EPA would consider the significance of the source relative to other priorities and determine whether EPA action was warranted.
- (4) For sources subject to the Post-1982 Enforcement Policy, there is an additional set of items which an adequate court or administrative order should include, as previously discussed. The most notable of these is that there should be a significant cash penalty. Thus, for these sources, EPA may need to conduct a penalties-only action under either Section 113 or Section 120 if the State action is adequate in every way except that no penalty was obtained.

Once a Regional Office has decided to initiate a Federal action, it must first decide whether to pursue the matter as a criminal, administrative, or civil enforcement action. Section 113(c) of the Act provides criminal sanctions for violations of certain requirements of the Act. EPA must identify the cases it intends to address with a criminal enforcement action early in the case development process to assure that the Agency protects the potential defendant's rights and to assure the integrity of the criminal enforcement process. When a Regional Office receives information indicating the likelihood of criminal activity, it should refer that information to the Criminal Enforcement Division at EPA Headquarters for further investigation and prosecution in accordance with the "General Operating Procedures for the Criminal Enforcement Program" issued on October 29, 1982.

When a Regional Office decides to initiate an administrative or civil action against a violating source, the Region frequently must initially obtain information from the source that will support the enforcement action. EPA may use its information-gathering authority under Section 114 of the Act to

require the source to provide the Agency with information concerning its compliance status. Section 114 of the Act authorizes EPA to require sources to establish and maintain records, install and use monitoring equipment, perform emission tests, admit inspectors, and, in general, provide the information EPA requires to determine whether the source is in compliance. Once the response to the Section 114 letter is analyzed, an inspection of the source to document the violation more thoroughly is often required.

To begin an administrative or civil enforcement action relating to a SIP violation, EPA must issue a Notice of Violation (NOV) under Section 113(a) of the Act. Once EPA has issued an NOV, the violator has thirty days to remedy the violation. No prosecution can occur if the violating source comes into compliance within the thirty days following the issuance of an NOV. This NOV step is not required for NSPS or NESHAP violations. For those violations, EPA may proceed immediately with an administrative order or a civil or criminal action. EPA may use its information-gathering authority under Section 114 of the Act to determine whether a violation continues to exist thirty days after the issuance of an NOV. A follow-up inspection can be performed to document the continuing violation where required. In addition, if the Section 113 conference with the source to discuss the NOV is held more than 30 days after the issuance of the NOV, an admission from the source might be sought at the conference. If a violation persists beyond thirty days, or if the violation concerns NSPS or NESHAPs where no NOV is required, EPA may issue an administrative order under either Section 113(a) or Section 113(d) or initiate a civil judicial action under Section 113(b). In addition, for certain new source violations as discussed below, an administrative order may be issued or judicial action initiated under Section 167.

A Section 113(a) order is an administrative enforcement mechanism which is often effective in bringing a source into compliance quickly. ~~It is~~ ^{most effective where operation and maintenance problems exist.} Reading Section 113(a) in conjunction with Sections 110(i) and Section 113(d), it appears that there are strict limits on the extent to which Section 113(a) orders can be used for SIP violators. Thus, EPA has concluded that such orders

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must require immediate compliance, defined as within 30 days of the effective date of the order. This limit does not apply to NSPS and NESHAP violators. For these sources, a longer period of time may be granted in a Section 113(a) order, but only when the need for additional time arises from circumstances beyond the control of the source, i.e., force majeure situations. These concepts are discussed in more detail in an April 30, 1982 memorandum from Kathleen Bennett to the Regional Administrators, entitled "Duration of Section 113(a) Orders" (See Attachment 8).

Another type of administrative enforcement mechanism is that used to halt illegal construction of a new or modified source in violation of Part C or D of the Act. For violations of the Prevention of Significant Deterioration (PSD) requirements in Part C, the appropriate order to be issued is one under Section 167. Such an order can be issued against:

- (1) A major emitting facility if it should have obtained a PSD permit but has not;
- (2) A source being constructed or operated pursuant to a State-issued PSD permit that conflicts with the requirements of the Clean Air Act, implementing regulations, or approved SIP requirements; and
- (3) A State if EPA has delegated the PSD program to the State and the State is about to issue a PSD permit which EPA believes is inconsistent with Part C or its implementing regulations.

Proposed detailed guidance regarding the use of Section 167 was sent to the Regional Offices for comment on July 7, 1983. Final guidance, reflecting a consideration of comments received, will be issued in the near future.

For violations of the new source review requirements of Part D, an available administrative enforcement mechanism is a Section 113(a)(5) order. This section requires that the Administrator make a finding that a State is not acting in compliance with the regulations referred to in Section 129(a)(1) of the

Clean Air Act Amendments of 1977 (the offset ruling) or any plan provisions required by Section 110(a)(2)(I) and Part D. Once this finding is made, EPA may issue an order under Section 113(a)(5) to a major source requiring it to refrain from or cease construction unless a valid permit is obtained from the State.

Authority to issue Section 113(a) and Section 167 orders has been delegated to Regional Administrators. Issuance of a Section 113(a)(5) or Section 167 order requires consultation with the Director, Stationary Source Compliance Division and the Associate Enforcement Counsel for Air at Headquarters. Issuance of a Section 113(a) order other than under Section 113(a)(5) requires no consultation with Headquarters.

If a source does not obey a Section 113(a) or Section 167 order or if EPA decides that a civil action is needed, the Agency may proceed in the courts under either Section 167 or Section 113(b). EPA may ask for any necessary injunctive relief under either section and, under Section 113(b), may seek civil penalties of up to \$25,000 per day of violation. A Section 167 action, unlike one under Section 113(b), does not require a Notice of Violation and documentation of a 30-day continuing violation.

Section 113(d) of the Act provides EPA and States with another administrative remedy, known as a Delayed Compliance Order (DCO). Under a DCO, EPA or a State may establish a schedule which requires compliance no later than three years after the source's SIP compliance date. (State-issued DCO's to major sources require EPA approval to be effective as a DCO.) A source which has been granted a DCO and which is in compliance with the terms of that order is not subject to further enforcement action under Section 113 for violations during the period of the DCO. However, major stationary sources can be required to pay a noncompliance penalty under Section 120 (see below), notwithstanding the DCO.

Due to the three-year limit for a DCO previously noted, there are relatively few sources eligible for DCO's for particulate matter or sulfur dioxide emission limit violations. Most of those limits were accompanied by SIP compliance deadlines more than three years past.

DCO's are much more widely available for sources violating volatile organic compound emission limits, many of which had final compliance dates of mid to late 1982.

There are two other types of DCO's which will not be discussed at length in this document, those issued under Sections 113(d)(4) and (5). While they serve important purposes, fostering use of innovative technology (Section 113(d)(4)) and conversions to coal by fuel-burning sources (Section 113(d)(5)), their application is highly limited. For similar reasons, this strategy will not discuss use of non-ferrous smelter orders under Section 119 of the Clean Air Act.

Before EPA issues a DCO, the source must meet the eligibility requirements in Section 113(d) of the Act. States may also issue DCO's but, as previously noted, any DCO issued to a major source requires EPA approval before it is effective.

Guidance regarding DCO's appears in various Agency memoranda, the most significant of which were compiled in an April 26, 1983 memorandum from Kathleen Bennett and Courtney Price to the Regional Administrators and Regional Counsels (Attachment 9). Procedures for processing delayed compliance orders are contained in Part 65 of 40 CFR. Further guidance is contained in the April 26, 1983 memorandum.

It should be clear from the description of the Agency's administrative order authority that such orders are limited and cannot be used to address many of the violations which EPA faces. Therefore, many of the EPA enforcement actions will come in the form of Section 120 proceedings (described next) or civil actions filed in Federal district courts.

In cases where a source is not in compliance with emission requirements, EPA may also seek non-compliance penalties under Section 120 of the Act. EPA may seek these penalties in addition to any relief under Section 113 of the Act. Section 120 is designed to recapture, in an administrative proceeding, the economic savings realized by sources in violation of applicable emission limits. While Section 120 is, by its terms, a penalty provision only, the prospect of a Section 120 penalty can often serve as a useful stimulant to prompt a source to come into compliance.

EPA initiates an action under Section 120 by issuing to the source a Notice of Noncompliance. Although adjudicatory hearings may occur before a source must pay a penalty, the penalty starts to accrue from the date EPA issued the Notice of Noncompliance. Consequently, it is often in the source's best interest to achieve compliance expeditiously and not frivolously use the administrative hearing process as a mechanism for delaying achieving compliance.

Of the formal responses previously outlined, Section 120 has been the most underused (approximately twenty cases so far). Efforts have been made and will continue to be made to increase its use by Regional Offices. Region II has been particularly effective at using Section 120 to encourage quick compliance. (See the memorandum discussing the use of Section 120 included as Attachment 10.)

If a Regional Office finds it appropriate to pursue litigation as its course of action for a violating source, it prepares a litigation report containing the factual and legal basis for its action and refers the report through appropriate procedures to the Department of Justice which, as the Federal government's attorney, litigates the matter on EPA's behalf.

One other possible sanction is the listing program under Section 306. It enables EPA to prevent a violating source from receiving any Federal contracts, grants, or loans once it is placed on the List of Violating Facilities. This program is coordinated by the Office of Enforcement Counsel (OEC) at Headquarters. It should be used much more extensively than it has been because it is a very powerful enforcement tool. Further guidance on the appropriate uses and procedures for Section 306 is being developed by OEC. In any event, it is important to note that listing under Section 306 is mandatory for facilities which are the subject of criminal convictions where the underlying violations have not been corrected. These listings should not await the development of further guidance.

Finally, it should be noted that it is expected that Federal facilities will fully comply with all applicable air pollution control requirements. EPA should respond promptly and vigorously to any viola-

tions under the same priorities established for other sources, making full use of the mechanisms of Executive Order 12088 and implementing procedures established by the Agency's Office of Federal Activities. State and local agencies are also encouraged to participate in the program to the maximum extent possible.

E. Considerations in Selection of an Appropriate Response

This section discussed considerations in selecting the appropriate vehicle for a Federal enforcement response once the decision has been made that a Federal response is appropriate. It is not intended to be prescriptive in nature, given that selection of a response must be based on a reasoned evaluation of all the circumstances of the case.

As previously noted, the first judgment to be made is whether to pursue a criminal action. While simultaneous civil and criminal actions are not prohibited, they should generally be avoided.

Priorities for criminal enforcement should include the following: knowing violations of State Implementation Plans that result in, or threaten, significant environmental contamination or human health hazard; knowing violations of NESHAPs requirements; and falsification of records or tampering with monitoring devices which has, or could be expected to have, a significant impact on EPA's regulatory process or decision-making. These priorities were set forth in an October 12, 1982 memorandum from Robert Perry to Regional Counsels, entitled "Criminal Enforcement Priorities for the Environmental Protection Agency."

Two other areas also deserve serious consideration for criminal investigation: criminal contempt for willful violations of civil consent decrees (punishable under 18 U.S.C. §401(3)) and violations of reporting requirements imposed by Section 114 letters.

For the large majority of cases, a criminal action would not be an appropriate response. Therefore, the other options detailed in the preceding section should be considered.

In deciding between administrative orders and civil actions, judgments should reflect a consideration of the likely effectiveness of each

option rather than artificial notions of "toughness". In the proper circumstances, an administrative response can be as effective as a judicial one.

In considering the use of a Section 113(a) order, the major factor is whether compliance can reasonably be required within 30 days. (Note that in the case of an NSPS or NESHAPs violation, this limitation does not apply if the violation arises from a force majeure event.)

In cases where compliance can be required within that period, a Section 113(a) order is often the best response since it can be issued simply and quickly. A Section 113(a) order should normally be used only where it is expected that the order may be complied with, however.

If it is felt that the source will not comply with the order, it probably would be better to select another option. This is especially true if the Regional Office believes that the source may attempt to challenge the order in a Court of Appeals under Section 307(b)(1) as a final Agency action. Since an EPA enforcement action must be brought at the District Court level, actions which invite collateral lawsuits at the Court of Appeals level should be avoided wherever possible.

Where a Section 113(a) order is not appropriate, the election generally will be between a DCO, a Section 120 action, and a civil action. (This, of course, presumes that a DCO is available.)

If a DCO is available, its use by EPA is most appropriate in cases where a source requires additional time to comply due to an unforeseen inability to comply and is acting in good faith to meet its emission requirements. This is because EPA has not routinely sought penalties for a source being issued a DCO for the period before the DCO is issued, although this is legally permissible. As noted in the July 28, 1978 guidance on use of Section 113 orders (included as part of Attachment 9):

The issuance of delayed compliance orders by either the States or EPA is discretionary. In exercising its discretion, EPA will consider any past compliance efforts and any prior State or federal enforcement actions involving the source. If, based on these and other relevant

1. Economic Conditions
2. Strikes
3. Force majeure
4. State Deliberate
of Equipment

factors, EPA determines that the source is one with an egregious history of noncompliance, recalcitrance, or environmental harm and/or that court supervision is likely to be required in order to assure expeditious compliance, the source will be considered an appropriate candidate for civil or criminal action and no federal delayed compliance order will be issued. Consequently, there will be no category of cases involving a federally issued delayed compliance order and a federal court action relating to the pre-delayed compliance order period. EPA will continue to urge the States to adopt a similar approach in exercising their discretion. However, EPA approval or disapproval of a State delayed compliance order will be based on the statutory criteria of Section 113(d). (p.5)

Another major factor in deciding whether to use a DCO is the policy that EPA will not issue a DCO unless the source formally consents to its issuance. The previously-referenced July 28, 1978 guidance states:

A delayed compliance order will not be issued unless the source indicates in writing (by signature of appropriate persons authorized to agree for the source) that it will agree to comply with the delayed compliance order. Source consent will be required for all Federal delayed compliance orders and is recommended for State delayed compliance orders as well. However, a source's agreement to comply is not precondition to EPA approval of a State delayed compliance order. (p.7)

The purpose of this consent provision is to give greater assurance that the source will comply and to minimize the possibility of a successful collateral challenge under Section 307(b)(1).

As an alternative to or in conjunction with a DCO, a Section 120 action should be considered. Because the amount of the Section 120 penalty is directly related to the length of the period of noncompliance following the issuance of a Notice of Noncompliance, it can serve as a powerful tool for prompting source compliance. However, this requires a judgment on the part of the Regional Office of how

the source is likely to respond. Where the source is not likely to respond positively, and injunctive relief will still be required, it is preferable to avoid the use of Section 120 and go directly to a Section 113(b) civil action for both injunctive relief and civil penalties. In addition, because issuance of a Notice of Noncompliance can lead very quickly to an adjudicatory hearing, a Notice should not be issued unless the Regional Office is prepared to proceed with such a hearing.

One circumstance in which a Section 120 order can be particularly useful is where the State has put the source on an acceptable schedule but has not collected penalties where penalties would be appropriate. EPA could defer to the State schedule in obtaining compliance and use the administrative mechanism of Section 120 to address the penalty issue in lieu of bringing a court action. In deciding between a Section 120 action and a court action, practical considerations such as how crowded the court docket is, the receptivity of the District Court judges to environmental litigation, and the readiness of the Regional Office to handle an almost immediate adjudicatory hearing should be carefully weighed.

Civil actions under Section 113(b) are most advantageous in the following situations:

- (a) a compliance schedule or other injunctive relief is necessary and an administrative order is unavailable or inappropriate;
- (b) the compliance history of the source suggests that the schedule should be subject to court supervision and contempt remedies;
- (c) substantial civil penalties for past violations are appropriate. (Note that in most cases, maximum penalties under Section 113(b) will be substantially greater than that under Section 120 because of the large per day amount and because Section 120 penalties run only from the date of the Notice of Noncompliance while Section 113(b) penalties are calculated back to the earliest date of provable violation.)

F. Ensuring Compliance with Response's Requirements

After Federal enforcement actions are resolved, EPA Regional Offices have the responsibility of monitoring the source's activities to ensure compliance with the terms of any administrative or court order. The Agency's Compliance Data System has the capability of serving as a tickler file for keeping track of interim and final compliance dates in schedules. It has been generally underused by Regional Offices for this purpose. In addition, a computerized system has recently been developed by the Agency's National Enforcement Investigations Center (NEIC) for tracking court ordered-schedules.

Regional Offices must conduct monitoring activities for their schedules sufficient to detect any failure to keep to the terms of the order. No detailed guidance is being provided here for this given that Regional Offices have extensive experience with schedule-tracking and because the monitoring effort reflects a case-by-case evaluation of the schedule itself and all the associated circumstances. When serious failures are detected, taking remedial action should be a very high priority, second only to emergency actions under Section 303. This is because such flouting of environmental requirements tends to undermine the entire regulatory framework, particularly if the violator is repeatedly unresponsive.

In order to enhance the enforceability of EPA's consent decrees, the Agency has developed model consent decree provisions. Some of the most important features to be included are:

- (1) Various increments in compliance schedules, so that source progress can be monitored. This avoids the situation of sudden discovery that the source is far behind its schedule. These milestones should be incorporated into CDS for easier tracking;
- (2) Reporting requirements, again to monitor source progress; and
- (3) Stipulated penalties; to provide an economic incentive for sources to meet incremental dates, as well as the final compliance date in the decree.

Naturally, it is critical for Regional Offices to monitor the progress of sources on State schedules, as well as those on Federal schedules. While the Regional Office need not be as intimately involved as the State, it needs sufficient information to assure that the schedule is being adhered to or that the State is responding vigorously to any slippage. Ultimately, EPA is responsible for assuring compliance with the Clean Air Act and the health and welfare of the American public.

IX. Special Issues

A. Enforcement of NESHAPs Standards

At the present time, there are final standards in place for certain source categories of four hazardous air pollutants: asbestos, beryllium, mercury, and vinyl chloride. Standards have been proposed for sources of radionuclides, arsenic and benzene.

Enforcement to date has focused on asbestos and vinyl chloride. Of the four pollutants already regulated, these two have posed the most significant incidence of noncompliance. The program should continue to focus on these two pollutants, but priorities may need to be altered as more standards become effective.

Adverse or conflicting court decisions currently affect the short term goals of the program with regard to asbestos and vinyl chloride. The Supreme Court, in Adamo Wrecking Company v. United States, 434 U.S. 275 (1978), held that certain requirements in the asbestos standard applicable to demolition operations were invalid because they were "work practice" requirements rather than numerical emission limitations. The court ruled that the Clean Air Act, prior to the 1977 amendments, did not authorize EPA to promulgate work practice standards. Until the asbestos standards are fully repromulgated, EPA should accelerate efforts to assure compliance with the portions of the standard which are not work practice standards, and portions which were repromulgated in 1978. Once the standards are fully repromulgated, the objective should be to assure compliance with the entire standard. (On July 13, 1983, EPA published a repromposal of the asbestos standard.)

EPA's experience with the asbestos demolition standard has suggested that an intensive, coordinated, highly visible effort to enforce these standards should be made as soon as they are fully repromulgated to establish the credibility of the enforcement effort and emphasize the importance EPA attaches to compliance with these standards. Discussions to plan such an effort have just begun and such a strategy will be developed prior to finalization of the July 13 proposal.

Compliance monitoring of asbestos sources, in the interim prior to full repromulgation of the standard, should focus on the enforceable portions of the standard. This means that monitoring should concentrate on source categories subject to a "no visible emissions" standard, including manufacturing sources, waste disposal activities, and demolition activities. Once the standard is fully repromulgated, a greater emphasis should be placed on demolition operations, which may present the most significant danger of exposure to the public of any regulated source category. Due to the transient nature of demolition operations, compliance monitoring requires quick response when notice of demolition or renovation is received. EPA's ability to assure compliance, at least as to demolitions and renovations, rests largely on self-reporting. Noncompliance by sources other than demolition and renovation operations can be detected primarily by sending observers to a source to look for visible emissions.

~~With respect to vinyl chloride, two recent court decisions have been rendered on the issue of whether the relief valve discharge provision in the vinyl chloride NESHAP is a work practice standard and is therefore invalid under ADGMO.~~ In United States v. Ethyl Corporation (No. 83-0120-A), the U.S. District Court for the Middle District of Louisiana ruled on July 1, 1983 that this provision was a work practice standard and thus invalid. However, in United States v. Borden (No. 83-1892-MA), decided on September 30, 1983, the U.S. District Court for the District of Massachusetts reached the opposite conclusion. The government agrees with the interpretation in the Borden case and intends to appeal the Ethyl decision to the Court of Appeals for the Fifth Circuit. The goal of the program should continue to be to promote compliance with the entire vinyl chloride standard, including the relief valve discharge standard. In this respect, EPA should become more active in moni-

t ring compliance and enforcing other portions of the standard, which have previously not been given much attention, and will assure, through rulemaking if necessary, the enforceability of the entire standard.

~~Reporting noncompliance by vinyl chloride sources~~ is done primarily through self-reporting. Sources are required to report each relief valve discharge within 10 days of occurrence and to report exceedances of other portions of the standard on a semi-annual basis. Compliance monitoring should, for the most part, consist of review of these submissions, but periodic inspections of company records is needed to determine whether violations are going unreported. There are only about 55 sources in the entire country subject to the standard, with a heavy concentration (about half) in Region VI.

The roles of EPA and the States in the NESHAPs program are determined primarily by delegations of authority. Under Section 112, EPA may delegate a State the authority to implement and enforce the standards. Such authority is concurrent, so EPA may still enforce the standards in a delegated State.

The statutory requirements for formal Agency response to a NESHAPs violation differ from those applicable to a violation of a State Implementation Plan. EPA is not ~~required~~ to issue a Notice of Violation or to confer with a source prior to issuing an administrative order under Section 113(a) or bringing a judicial enforcement action under Section 113(b). The types of response available are more limited because EPA cannot issue a Delayed Compliance Order under Section 113(d).

EPA Headquarters has issued guidance on the types of enforcement response which should be considered and the circumstances in which each should be used. Further guidance will be issued in anticipation of the repromulgation of the asbestos standard. The memorandum issued on June 28, 1983 by Michael Alushin, Acting Associate Enforcement Counsel for Air, and Ed Reich, Director of the Stationary Source Compliance Division, entitled "Enforcement of the National Emissions Standard for Vinyl Chloride" (Attachment 11), is the most current guidance on enforcement of the vinyl chloride standard.

B. Enforcement of VOC Standards

An area of increasing focus of the stationary source compliance program is the regulation of sources emitting volatile organic compounds (VOC). Such

sources are major contributors to the ozone nonattainment problem and some emit compounds which are highly toxic in nature which may be reduced through an aggressive program to enforce VOC standards.

Generally speaking, widescale regulation of VOC was initiated by the 1979 Part D SIPs. As part of those SIPs, many States adopted regulations requiring compliance on or before December 31, 1982. It is the relatively recent passage of these compliance dates which has created the need (and opportunity) to increase the attention devoted to compliance efforts for VOC sources.

A wide variety of sources emit VOC. These primarily include sources in the petroleum industry and gasoline marketing chain and makers and users of various paints and solvents. Addressing the VOC compliance problem presents some differing circumstances from earlier compliance efforts. Most importantly:

- (1) The regulated community includes a greater proportion of smaller sources and the relative impact of the emissions of those sources is probably also greater than for particulate matter or sulfur oxides;
- (2) The applicable regulations are often more complex, including the "bubbling" of multiple VOC sources;
- (3) Averaging times for compliance with VOC standards are often longer than those associated with other pollutants; and
- (4) Compliance determinations are more heavily dependent on reviewing records and calculations than on traditional observation and testing approaches.

Efforts to address the problem of VOC compliance must recognize and account for these differences.

To assist in the coordination of efforts to improve the Agency's VOC compliance program, a VOC Compliance Workgroup has been established. This workgroup will serve both as a vehicle for Regional input into the development of Headquarters guidance on VOC and as a means for technical interchange of information among the affected Headquarters and Regional Offices.

At its first meeting, the workgroup discussed the status of various Regional VOC programs and what efforts will be required to assure a fully effective, consistent national program. A number of important conclusions about the status of the VOC program which became apparent from this meeting were:

- (1) Most Regional Offices have initiated significant efforts to address the VOC problem.
- (2) Most Regional Offices believe their inventories are roughly 80% complete for Class A sources. Data are particularly weak for non-extension areas. Additional work to refine these inventories would be beneficial. Contractors could be used for this purpose.
- (3) The contribution (and importance) of Class B sources is still unclear. Further analysis of SIP inventories will be necessary to define the degree to which EPA should focus on any portion of the Class B universe. (New York City was identified as one area where Class B sources are clearly very important.)
- (4) Much of the data on VOC sources are not reflected in CDS. Here again, contractor support could be productive.
- (5) Data being received from States on sources' compliance status is often spotty and of questionable accuracy. While efforts to work with States need to be continued, broader direct Federal effort, utilizing Section 114, will likely be required. This may need OMB approval under the Paperwork Reduction Act.
- (6) Effective workshop and training programs should be continued to meet both Regional and State needs.
- (7) There is a need for a source of technical expertise on the VOC industry which the Regional Offices can utilize in their compliance programs. Various options, including use of contractors, need to be explored.

A workplan to pursue these immediate needs is under development. Efforts to provide contractor support to meet the needs of the Regional Offices to improve their inventories and reflect the data in CDS have already been initiated.

C. Continuous Compliance

An area which merits further discussion is the subject generally termed "continuous compliance". Before discussing it in detail, it is worth articulating once again the nature of the problem.

As previously noted, the major compliance monitoring technique used in the air program is the inspection. Because of the limited resources available to Federal and State agencies, inspections of a source are infrequently more often than quarterly for even the most significant sources. More typically, inspections are performed only on an annual (or less frequent) basis. Further, even when inspections are performed, they do not normally involve stack testing. Generally, stack testing is routinely performed only for the initial demonstration of compliance and thereafter if there is reason to doubt the source's continued compliance. Continuous emission monitoring technology has not been widely used and data from a monitor is not usually usable as the sole basis for an enforcement action.

Given these limitations, it is fair to assume that compliance data being reported by States do not indicate what is happening at a facility on a day-to-day basis, but rather whether the source has been determined to be in compliance at an announced inspection after it has had the opportunity to optimize the performance of its control equipment. Thus, it indicates whether the source is capable of being in compliance rather than whether it is in compliance in its day-to-day operations.

It is generally recognized that many (if not most) sources have emissions which exceed allowable levels at some time during the year. These emissions are due to such factors as unavoidable process or control equipment malfunctions, inattention to proper operation and maintenance considerations and, in a few instances, deliberate attempts to avoid the costs of maintaining compliance. These emissions may or may not be excused under various malfunction provisions in effect in various States.

A study conducted in 1978 for EPA attempted to define with greater precision the magnitude of the problem. The study consisted of about 180 controlled

and supposedly well-maintained air pollution sources of various types and sizes. Due to a lack of source records, the study was forced to draw upon a host of sources of information, including operator anecdotes and post-hoc engineering judgment by the contractors conducting the data-gathering, to quantify source emission levels. The study found that sources were experiencing emissions which were significantly in excess of established limits. Major causes of the exceedances included improper design and inadequate operation and maintenance of process and control equipment.

These conclusions were generally confirmed when EPA recently concluded a contractor effort to develop a pilot inspection scheme with a Virginia regional office. The purpose of the study was to determine whether by improving the skills of State inspectors, they could do a more effective job in identifying operation and maintenance (O&M) related problems. The program involved, among other things, utilizing differing levels of thoroughness of inspection for differing situations. (See Section VII E for greater detail.) Quoting from the report of this study:

The 68 level 3 inspections of individual processes or emission units identified 25 sources (37%) as being out of compliance with either visible or particulate emission standards. Of the total number of processes or emission units inspected 46 (67%) were identified as having O&M related problems.

It should be pointed out that of the 25 sources for which compliance problems were identified, only 12 would have been identified as a result of a Level 1 inspection (i.e. type of inspection routinely conducted prior to the study).

In addition of the 46 sources for which O&M related problems were identified, none of the problems would have been identified through the use of a Level 1 inspection. (emphasis added)

The latter observation illustrates the difficulty of characterizing the status of continuous compliance. Current inspection methods and capabilities coupled with very limited self-monitoring requirements make detection unlikely. It also highlights the point that many States may assume that there is not a problem because they can't tell.

A separate part of the 1978 study previously referred to evaluated the ability of nine exemplary State and local agencies to operate in a continuous compliance mode. Not surprisingly, the study found that while the programs were basically sound, they lacked many of the tools needed to deal effectively with continuous compliance problems. Inasmuch as the study looked at cooperative, reportedly well-maintained sources and exemplary agencies, it is reasonable to expect that the results understate the actual situation.

As a result of the related findings that the problems were widespread and significant and that front-line agencies faced serious difficulties, a continuous compliance initiative was developed. The principal thrust of this initiative was a 5-year program of State capacity building. More specifically, EPA was to lead the development of a range of useful tools which States could implement on a voluntary basis, as necessary, to address specific operational problems. Whenever possible, State interest would be identified in advance and State participation obtained through pilot programs.

Severe resource cuts and conflicting priorities almost immediately precluded implementation of the initiative as originally conceived. Notwithstanding this, some of the elements of the initiative have been incorporated into EPA's present program. The Virginia study previously referred to is an example of this. Other examples are discussed in Section X of this strategy dealing with Compliance Promotion.

While it is clear that continuous compliance presents a significant compliance problem, the environmental impact is less clear. Ambient monitoring data have established that large portions of the country are already attaining the national ambient air quality standards. That ambient monitoring data should already reflect the effects of excess emissions which may be occurring but which are not otherwise detected. If those emissions are not sufficient to interfere with attainment of the ambient standards, if the ambient data are reliable, and if the ambient standards are truly protective of public health and welfare, the environmental effects of present levels of excess emissions due to the continuous compliance problem may be less significant than once assumed.

Clearly, though, the problem of emissions arising from poor operation and maintenance has the potential to become seriously aggravated if the enforcing agencies show an indifference to attempting to ensure that continuous compliance is maintained. It is equally clear that once a substantial investment of effort and money has been made by industry and government to assure that controls are installed, efforts should be made to assure that the full benefits of the investment are realized. Therefore, serious efforts to improve industry's ability to comply on a more continuous basis and to improve the ability of governmental agencies to determine compliance on a continuous basis must be maintained. This is especially true in relation to development of improved continuous monitoring technology, either for emissions monitoring or parameter monitoring.

Elements which could be directed at improving the ability of enforcement agencies to address continuous compliance in the near and mid-term include:

- (1) following up on the Virginia inspection study to provide information to States on upgrading their inspection function;
- (2) more flexible inspection programs;
- (3) greater use of unannounced inspections;
- (4) promoting expanded use of CEM technology;
- (5) greater information exchange on CEM usage;
- (6) developing improved methods for coal-sampling and analysis for sulfur content;
- (7) developing improved information on failure modes/compliance problems and disseminating that information;
- (8) compliance promotion activities of the type discussed in Section X; and
- (9) encouraging voluntary design standards and increased attention to design review in permitting.

While this strategy has touched on many of these elements, there is no present systematic approach to coordinate efforts on an Agency-wide basis. To faci-

litate development of a coordinated and effective program to address this issue, a supplemental continuous compliance strategy document is being developed.

A question may arise as to the priority of the continuous compliance problem (especially in attainment areas) relative to the potentially very significant initial compliance problem for VOC sources. At the State and local level, this requires a judgment as to the relative environmental significance of the two problems, a judgment which could lead to differing conclusions in different areas. At the Federal level, current resource levels will limit the ability of the Agency (especially at the Headquarters level) to address both problems to the extent it would otherwise like. To the extent there is a conflicting demand for resources, the VOC problem must take precedence. This is because so much of the country exceeds ambient standards for ozone, thus exposing the public to unhealthy air, and also because of the toxic nature of many of the constituents of the VOC compounds.

Incidentally, it is questionable if the continuous compliance problem will be of comparable relative magnitude for VOC sources. It well may be that the problem will be significantly less important. This can be hypothesized for the following reasons:

- (1) VOC sources are more often controlled by product reformulation, which would be less prone to intermittent excess emissions;
- (2) to the extent that VOC emissions arise from leaks (e.g., in petroleum storage facilities), the economics of recovering product have led to substantial efforts to minimize such leaks; and
- (3) to the extent that VOC emissions are reduced through control equipment, such equipment (usually an afterburner) is much less subject to malfunction than, for example, controls typically used for particulate matter.

In summary, a modest effort at developing tools to address the continuous compliance problem is worthwhile and is recommended although these efforts must fit within priority needs to address the initial control of VOC sources.

D. Emerging Issues Associated with the Application of Bubble Rules

1. Complexity Involved in Determining Compliance with Bubbles

An issue of relatively recent origin in the air program is the increasing complexity of applicable emission limits as sources and States take advantage of the provisions allowing use of "bubbles" in EPA's Emissions Trading Policy Statement. (The existing Policy Statement was published at 47 FR 15076 (April 7, 1982) and is effective as interim guidance pending issuance of a final policy. The Agency's original bubble policy was published in December 1979.) Under the bubble concept, a source with multiple emission points, each of which is subject to specific SIP emission limitations, may propose to meet the SIP's total emission control requirements for a given criteria pollutant with a mix of controls different from that required by the generally applicable regulations. The intent is to allow sources the opportunity to install controls with the same air quality impact but at less expense by placing relatively more control on emission points with a lower marginal cost of control and less on emission points with a high cost.)

Much of the Agency's experience with emission trades has occurred in the regulation of VOC sources. As discussed earlier in this strategy (see Part B of this section), determining the compliance status of VOC sources is often more difficult and resource-intensive than it is for other pollutants. When VOC sources operate under approved bubbles, the complexity of making a compliance determination is compounded. With a bubble, a large number of emission points becomes subject to an interdependent set of standards. If the bubble is one for multiple facilities, the calculations necessary to evaluate VOC compliance status can be quite lengthy; making the compliance determination requires an evaluation of the emissions of all the interdependent sources for the same time period.

Further complicating compliance determinations for some sources is the fact that the Agency has approved a few VOC bubbles with longer than daily averaging periods for the application of emission standards. The existing Policy Statement generally requires that the averaging time given by a State be on no longer than a 24-hour basis. However, the concept of a daily weighted average emission rate can pose problems for the States. Industry has argued that VOC emissions cannot be quantified on a daily basis. Surface coaters, for example, often do not use each VOC-emitting machine each production day. Consequently, States are under pressure to approve emissions trades with longer than daily averaging times.

EPA is sensitive to this issue and has allowed some trades that incorporate longer-term averages for VOC sources where a daily weighted average is impractical or application of RACT is not feasible on a daily basis. However, since many more sources can be expected to want to utilize VOC bubbles in coming into compliance, the issue of averaging times for VOC trades is one which will take on increasing importance. For emission trades with longer than twenty-four hour averaging times, an additional exercise involved in evaluating the source's compliance status is determining compliance with the daily emissions cap, which must also be part of the bubble.

The concern is that there reaches a point where this complicated regulatory structure, while being theoretically enforceable, becomes unenforceable in the real world. Sources subject to VOC bubbles must keep voluminous records for all their different product lines. To determine compliance at such sources, EPA or the State must devote very considerable efforts to making detailed calculations. While this situation need not preclude the Agency from pursuing the innovations created by the policy, the Agency should carefully monitor implementation of the policy to identify whether additional attention needs to be given to ways of ensuring compliance with emission trades.

2. State Application of Generic Bubble Rules

As originally promulgated in 1979, the bubble policy statement required the States to submit each approved alternative emission reduction plan to EPA for approval as an addition to the SIP. Beginning in April 1981 with the Agency's approval of New Jersey's generic rule for VOC emissions trading, however, EPA has approved several State generic bubble rules. In the context of the Agency's auditing of the information supplied by the State for each such emissions trade, the issue of ensuring the State's adherence to the specific provisions of the generic rule in the SIP and to the Agency's Emissions Trading Policy Statement, more generally, arises.

Experience to date reveals that under generic bubbles for VOC, States may be approving emissions trades which do not always meet the applicable requirements. Should EPA find that a State has approved an emissions trade that is substantially inconsistent with a generic rule in a SIP, the Agency will be in the position of having to so notify the State and specify necessary remedial measures. If the State fails to eliminate the inconsistency, EPA may have to enforce the original SIP limits. To avoid the necessity for such Federal action, it is therefore critical that now, when the States are just beginning to utilize their EPA-approved generic rules, the Agency make serious efforts to work with the States and ensure that emissions trades are consistent with generic rules. Otherwise the Agency will face a host of new problems to address in its air enforcement program.

X. Compliance Promotion Activities

Within the constraints imposed by present resource levels, efforts will be directed at continuing compliance promotion efforts presently underway. Compliance promotion, while in no way substituting for a strong enforcement program, recognizes that many sources would like to comply with applicable standards but

may not know that standards are applicable or understand what they need to do to comply. Compliance promotion includes both technical assistance and information exchange activities.

In the past, Agency efforts generally were reflected in traditional forms of training and technical assistance. In addition to the extensive training made available to both industry and government officials through EPA's Air Pollution Training Institute, EPA has expanded considerably its technical support for State and local enforcement agencies in recent years. This has taken the form of both an expanded workshop program and case specific assistance. As the skills of State personnel improve, they may be able to transfer some of that knowledge to the sources with whom they deal. In addition, EPA is committed to working more cooperatively with the Air Pollution Control Association (APCA), especially in encouraging and supporting efforts by APCA to play a larger role in educational and information exchange programs.

As a part of its technical support for State and local enforcement agencies, EPA prepares inspection guides for specific industries. These guides enable the regulatory agencies and industry to evaluate the operation and maintenance of a source's air pollution control equipment and to confirm that it is performing properly. The guides provide specific evaluation techniques for assessing operating problems, including cookbook-type procedures for inspections, worksheets for process and emission calculations, checklists for pre-visit, visit and post-visit information and observations, technically specific do's and don'ts based on many prior similar visits, and guidance as to why each step in the inspection process is necessary and important. The guides are of equal benefit to the source and the inspector and are often requested by the affected industrial concerns.

In a similar effort to promote information exchange, EPA has been working with industry and a trade association to develop a design review handbook for solid materials handling operations (physical processing and transport). The guide is intended to aid agencies and industry in identifying and addressing air pollution control equipment design factors to mitigate potential operating and maintenance problems. Permit-issuing authorities and the affected industries will benefit from this work by assuring that proper conditions are incorporated in permits and that these conditions are understood and followed by industry.

Over the past four years, EPA has worked in close cooperation with the electric power industry, the related trade associations, manufacturers of monitoring equipment, and State and local air pollution control agencies to facilitate continuing compliance at power generating facilities. EPA cooperative activities included a survey in 1979 with the Edison Electric Institute (EEI) to determine the degree of use by their members of continuous emission monitors and the associated technical and administrative problems. As a follow-up to the survey, EPA sponsored a 1980 national conference with EEI, CEM manufacturers, and air pollution control agencies attending.

The CEM technical deficiencies documented in the 1979 survey were discussed with the CEM manufacturers and subsequent significant improvement in CEM performance was noted. These first two important meetings established EPA as the clearinghouse for CEM information, a source that industry and State and local agencies would continue to use extensively. In addition to other activities, nine technical guides were developed over the last few years in the CEM area. Industry participated in the development of these guides and is utilizing the information in their daily operations. In addition, prompted by the success of cooperative efforts in the CEM area, the Agency has been working with other interested parties in a similar effort involving coal sampling and analysis procedures.

EPA has recently begun efforts to work with industry trade groups for sources regulated by VOC standards to develop ways to facilitate compliance by sources represented by those organizations. These efforts are particularly important for VOC sources due both to the relatively recent adoption of the standards and the large number of smaller sources which may be covered by those standards. Presumably, any efforts EPA makes to enhance the ability of these sources to understand their obligations and comply can be rewarded with some very significant air quality benefits.

As an example, EPA worked with the Can Manufacturers Institute (CMI) in producing a compliance handbook for the can coating industry which was furnished to State and local officials, EPA Regional Offices, and can coaters. The handbook takes a step-by-step approach to discussing the regulation, the rationale for the RACT values, important terms and definitions, and various compliance options. With this aid, can coaters and regulatory officials can better understand the process of can coating.

the various approaches for compliance, what those approaches mean to day-to-day operations, and compliance scheduling techniques. The handbook also includes a work sheet for determining allowable and actual emissions for compliance determinations.

As another example, in discussions with representatives from the National Paint and Coating Association, it was decided that it would be very beneficial for users of coatings and regulatory officials to have a uniform data base to work from when making determinations of compliance. It was agreed that if coatings were identified by the manufacturer as to their contents with a standard data sheet which would include all the major elements for making a compliance determination, this would generally eliminate the need for individual analysis by the user or regulatory official of each coating to determine its contents.

Therefore, manufacturers of coatings have agreed that if EPA can develop this data sheet with their concurrence, they will affix this sheet to all coatings that they supply. A proposed data sheet has been submitted to the manufacturers. If accepted, EPA will routinely accept this information about the coating as the basis for determining compliance without requiring further individual analysis although, if doubt exists, testing may still be required using the approved test method. This should eliminate much individual testing, which with inexperienced personnel would likely produce more questionable results. Through the cooperative efforts of EPA and industry, the burden on all parties is reduced and the likelihood of compliance enhanced.

As a final example, EPA is involved in a cooperative project with industry to assess the reliability of a variety of bulk gasoline terminal vapor control systems in various geographic areas. Approximately sixteen to twenty systems, involving three types of control systems, are being evaluated during monthly inspections over approximately a two-year period. An inspection manual with a specific checklist of what is to be observed will be a major output of the study. The manual, together with the data accumulated on the reliability of the control systems, should provide useful information to industry to assist in assuring better performance and provide useful design considerations for future construction.

EPA will continue to look for opportunities to work cooperatively with industry groups, especially in the VOC area, which present similar benefits. However, due to resource constraints, no formal institutionalization of this program is envisioned.

XI. Major Cross-Program Elements

While there are various points of intersection between the stationary source air compliance program and other Agency compliance programs, the two which have the greatest environmental significance are the use of Section 303 (emergency episode authority) and the NESHAPs program.

A. Section 303

In the course of implementing its authority under Section 7003 of the Resource Conservation and Recovery Act (RCRA), the Agency has begun to identify situations where the emissions to the air arising from a target site are presenting a substantial health problem. If an imminent and substantial endangerment to the health of persons can be documented, an action under Section 303 of the Clean Air Act as well as Section 7003 of RCRA is appropriate. A few such joint actions have already been filed. Appropriate communications links between the various Agency groups involved in the Clean Air Act and RCRA are just being formed and solidified. Such links are most critical at the Regional level.

B. NESHAPs

The NESHAPs program overlaps significantly with other media programs, particularly the toxic substances and hazardous waste programs. For example, a regulation adopted by the Office of Toxic Substances requires school districts to notify affected persons of the presence of asbestos in schools. Although removal of asbestos is not specifically required, many schools are proceeding with removal, an activity which may be subject to the NESHAPs regulations, depending on the amount of asbestos present. Each Regional Office should develop a means of coordinating the implementation of the asbestos in schools program with monitoring compliance with demolition and renovation requirements in the NESHAP.

The asbestos NESHAP also regulates disposal of asbestos waste. Improper disposal could be subject to an action under Section 7003 or Section 3008 of RCRA and under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act (Superfund). So far, coordination of enforcement responses which may involve two or more of these statutes has been handled informally at Headquarters on an ad hoc basis. Regional Offices should assure that all relevant program and legal counsel components are involved in an early stage in developing the Agency response to violations of more than one statute.

Failure to report a vinyl chloride relief valve discharge would subject a source to liability under NESHAPs regulations and also under proposed regulations implementing notification requirements under Superfund. Should the Region detect a failure to comply with such a reporting requirement, an action under both the Clean Air Act and Superfund should be considered.

XII. Evaluating the Effectiveness of the Compliance Program

Unfortunately, the complexity of the air program and the inter-relationships between Federal and State activities militate against simplistic formulations for evaluating the effectiveness of the stationary source compliance program. In addition, as the program has matured, indicators which at one point may have been valuable become substantially less so and new measures must be found.

Use of compliance rates is illustrative of this problem. In the early stages of the program, significant improvements in the compliance rates were expected and were viewed as a measure of the effectiveness of the program. In recent years, the compliance levels have stabilized. Given that there will always be some level of noncompliance at any point in time, it is unrealistic to assume that compliance rates will continue to improve. If stable compliance rates are accompanied by vigorous activity to identify new violators and resolve existing ones, the program can be viewed as working successfully. If the stable compliance rates are reflective of the same violators over an extended period with little movement on and off the list of violating sources, the program is stagnant and ineffective.

Further complicating the picture is the fact that decreasing compliance rates can be more indicative of a healthy program than stable or increasing rates. For selected elements of the air program, this is probably the situation right now. Large numbers of VOC sources have fairly recently become subject to State and Federal regulation. A significant percentage of these sources are not yet incorporated into the CDS data base. It is reasonable to assume that violation rates are probably higher for these sources than for the rest of the regulated universe which has been complying (or attempting to comply) since the mid-1970's. The better the effort to identify these potential violators and reflect them in the data base, the more likely the compliance rates will decline. This effect has already been noted; for the first time in recent years the percentage of SIP violators increased during FY 1983. This effect is likely to continue for some time before efforts to resolve these violators causes compliance rates to begin to improve again.

Efforts to assure continuing compliance present a similar problem. As noted in Section V, present compliance rates tend to be overstated because they do not truly reflect intermittent violations associated with malfunctions, inattention to proper operation and maintenance procedures, and other factors which will not usually surface during an annual inspection but will inevitably occur to some degree in a plant's day-to-day operation. As techniques for determining continuing compliance improve, and compliance data become more truly indicative of day-to-day operations, compliance rates should decline. Such a decline, however, should be viewed as a positive indicator, not a negative one.

All this is not to suggest that compliance statistics are irrelevant or may not be useful indicators of the health of the program. It is intended rather as an indication that compliance rates are not by themselves adequate indicators, and that changes (up or down) cannot be used to evaluate the program without a full understanding of why the changes are occurring. The suggestion that an increase in the compliance rate is a sign of a strong program and a decrease the sign of a weak program is invalid. In addition, compliance trends are to be evaluated for significant movements over an extended period of time rather than reacting to short-term marginal changes.

Another potential measure of the effectiveness of the program is the number of particular actions taken by EPA and the States, such as the number of orders issued or cases referred for litigation. While again this kind of data is useful in the context of an overall evaluation, it has too often been viewed as meaningful in and of itself. Most professionals in the program do not subscribe to this view. There are numerous ways of achieving the same objective, reflective of the different State statutory authorities, enforcement philosophies, problems, experiences, relationships with sources, and so forth. Focusing on the means to the end rather than the end itself (i.e., expeditious resolution of the violation) may reduce the available options for dealing with a problem. In addition, it may lead to taking simple cases rather than complex ones (if all cases are counted the same) and often leads to accusations that cases are being brought just to get the numbers up. In addition, especially in evaluating State data, definitional differences often complicate a meaningful analysis.

As with compliance statistics, numbers of enforcement actions may be valuable if properly used as an indicator of possible problems to be investigated. While "more" is not necessarily "better", the total absence of enforcement actions may be a cause for concern. Given the potential for misuse, however, enforcement statistics are not recommended as a primary tracking tool.

Another possible area, worthy of longer term evaluation, is the direct measurement of the environmental impact of the compliance program. This approach is being considered by the Agency but it is not yet readily usable in the compliance area. For this reason, it is not being considered, at least in the short term.

Based on experience to date, the following components are suggested as useful indicators at the national level of the various elements of the program's effectiveness.

- (1) evaluation of whether inspections are being performed in accordance with the State's inspection frequency guidance;
- (2) an indication of the degree to which violators are being found;
- (3) a qualitative review of the effectiveness of the State's compliance assurance procedures;

- (4) a review of whether the compliance data are being sent to EPA and entered into CDS in a timely way;
- (5) a statistical summary of the numbers of violators brought into compliance or put on an acceptable schedule during the period; and
- (6) a close tracking of a defined category of violators to determine the success of State and EPA efforts to resolve the violations expeditiously.

Obviously, data needs at the Regional level will be more extensive.

The Agency's Management Accountability System has been established as the primary vehicle for tracking and measuring the effectiveness of the program at the national level. The accountability system requirements for FY 1984 involve quarterly reporting by each Region of the following:

- a. compliance status of major sources (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- b. number of newly-identified violators (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- c. number of violators placed on an acceptable compliance schedule (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- d. number of violators achieving final emission limitations (Class A SIP, Class A1 SIP, NSPS, NESHAPs)
- e. percentage of sources which should have been inspected within the most recent four quarters (Class A1 sources, NSPS sources, and NESHAPs sources) which actually were inspected either by EPA or the States
- f. For significant violators for each Region:
 1. number of significant violators at the beginning of the quarter not on an acceptable compliance schedule

2. number of newly-identified significant violators during the quarter, based on report from Regions
3. number of significant violators resolved during quarter:
 - number of violators placed on acceptable compliance schedules
 - number of violators achieving final emission limitations
4. number of significant violators still out of compliance and not on an acceptable compliance schedule

This system provides a useful quantitative data base for the type of analysis described earlier. To improve further the quality of this analysis, each Regional Office will be required to submit, at the conclusion of FY 1984, a summary report on the resolution of significant violators in its Region during the year. (For purposes of this analysis, significant violators newly identified during the fiscal year will not be included.) This report will contain the number of significant violators at the beginning of the fiscal year and, of these, the number which by the end of the fiscal year are in each of the following categories:

- (a) in compliance with final emission limitations
- (b) in compliance with a Federal schedule
- (c) in compliance with an acceptable State schedule
- (d) subject to a pending Federal enforcement action
 - (1) judicial
 - (2) administrative
 - (3) informal
- (e) subject to a pending State enforcement action
 - (1) judicial
 - (2) administrative
 - (3) informal
- (f) other

A brief narrative description of the status of all sources in (d)(3), (e)(3), or (f) will also be required. In addition, specific targets for accomplishing this activity will be defined.

For a more complete picture, such data need to be combined with an annual audit of State performance (especially qualitative elements) by the Regional Office and a periodic review by Headquarters of Regional Office performance under a mechanism similar to that established in the attached memorandum of April 27, 1983 on the FY 1983 Regional Air Compliance Program Evaluation (See Attachment 12).

One element which has proven particularly difficult to evaluate and incorporate into a formal reporting system is the expeditiousness of actions taken to resolve non-compliance. For this reason, there is a strong temptation to define precise time periods for certain actions to occur so as to have a basis for evaluating whether these target time periods are met. Countervailing concerns are that any such time periods may fail to recognize legitimate differences between cases and might serve to establish a lowest common denominator for action. While it is a close question, this strategy suggests not establishing such timeframes. However, in lieu of this, in any instance where a Regional Office is deferring to the State on an enforcement action, there must be a clearly documented record of the basis for deferral, the expected State action and timetables for that action, periodic reporting by the State to the Regional Office on the progress being made and, if progress is not timely, a re-evaluation of the appropriateness of continued deferral. While this information would not need to be routinely communicated to Headquarters, Regional Offices should be able to articulate this information upon request.

XIII. Plans for Future Guidance

The following is a list of subjects for which supplementary, detailed guidance is contemplated.

- (a) assuring continuous compliance by regulated air sources;
- (b) use of unannounced inspections by EPA;
- (c) use of continuous emissions monitoring excess emissions data in the compliance program;

- (d) enforcement of VOC standards;
- (e) enforcement of asbestos demolition standards;
- (f) enforcement of benzene NESHAPs (if promulgated and as necessary);
- (g) enforcement of arsenic NESHAPs (if promulgated and as necessary);
- (h) enforcement of radionuclides NESHAPs (if promulgated and as necessary); and
- (i) enforcement of PSD requirements.

XIV. Summary Identification of Major Changes
from Existing Strategies

While the stationary source compliance program is considered to be a "mature" program, it is continually evolving as new challenges are presented. Because of this continual evolution, accompanied by guidance on specific issues as they arise, it was not anticipated that a need for major changes of direction would be identified in the course of evolving this strategy document.

This, in fact, proved to be the case. The three changes which are important enough to identify in this summary section are the major revision to the Agency's guidance on inspections frequency to provide more flexibility to States (discussed in Section VII C), the recommendation of a substantially increased use of continuous emission monitoring data in the Agency's standard setting and compliance programs (discussed in Section VII F), and the increased priority and attention given to sources of VOC emissions (discussed in Section IX B).