



Office of Inspector General
Report of Audit

**EPA Region 3's Oversight of
Maryland's Air Enforcement Data**

E1KAF7-03-0047-7100302

September 29, 1997

**Inspector General Division
Conducting the Audit:**

Program Office Involved:

**Mid-Atlantic Division
Philadelphia, PA**

**Air, Radiation & Toxics Division
Philadelphia, PA**



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MEMORANDUM

SUBJECT: Report of Audit on EPA Region 3's
Oversight of Maryland's Air Enforcement Data
Audit Report Number E1KAF7-03-0047-7100302

FROM: Carl A. Jannetti
Divisional Inspector General for Audit (3AI00)

TO: W. Michael McCabe
Regional Administrator (3RA00)

Attached is our audit report on *EPA Region 3's Oversight of Maryland's Air Enforcement Data*. The overall objectives of this audit were to determine whether the Maryland Department of the Environment (MDE): (1) identified significant violators in accordance with EPA's Timely and Appropriate Enforcement Policy; (2) reported significant violators to EPA; (3) performed inspections that were sufficient to determine if a facility violated the Clean Air Act; and (4) input the required information into EPA's database. This report contains findings and recommendations that are important to both EPA and MDE.

This audit report contains findings that describe problems the Office of Inspector General (OIG) has identified and corrective actions the OIG recommends. This audit report represents the opinion of the OIG. Final determinations on matters in this audit report will be made by EPA managers in accordance with established EPA audit resolution procedures. Accordingly, the findings contained in this audit report do not necessarily represent the final EPA position, and are not binding upon EPA in any enforcement proceeding brought by EPA or the Department of Justice.

ACTION REQUIRED

In accordance with EPA Order 2750, you as the action official are required to provide this office a written response to the audit report within 90 days. Your response should address all recommendations, and include milestone dates for corrective actions planned, but not completed.

We have no objection to the release of this report to the public. Should you have any questions about this report, please contact me or Patrick Milligan at 215-566-5800.

Attachment

EXECUTIVE SUMMARY

PURPOSE

The purpose of this audit was to determine whether the Maryland Department of the Environment (MDE):

- ◆ Identified significant violators in accordance with EPA's Timely and Appropriate Enforcement Policy.
- ◆ Reported significant violators to EPA.
- ◆ Performed inspections that were sufficient to determine if a facility violated the Clean Air Act.
- ◆ Input the required information into EPA's Aerometric Information and Retrieval System.

RESULTS-IN-BRIEF

Our audit disclosed several areas needing improvement with respect to the quality of MDE's inspections and reporting of enforcement information into EPA's database.

SIGNIFICANT VIOLATORS NOT ALWAYS REPORTED TO EPA AND NO EVIDENCE OF ADEQUATE INSPECTIONS

MDE's inspection program needs improvement. For almost half of the files we reviewed, it was not possible to determine whether the State did enough to identify significant violators of the Clean Air Act. This occurred because there was no evidence in the State's files to show that the inspector did the evaluations required for Level 2 inspections. Moreover, several MDE inspectors did not complete the tests and evaluations required. As a result, inspection reports were often not thorough enough to show whether a facility complied with EPA requirements, as well as State and federal regulations. Without this documentation, there was no assurance the State's inspectors determined that the facility complied with the Clean Air Act and the facility's applicable permits.

Because many of the State's inspection reports did not show which evaluations inspectors performed, EPA cannot assess the adequacy of Maryland's air inspection program. It is imperative that EPA assess MDE's inspection efforts, because during the past three fiscal years, MDE performed more than 2,000 inspections at major facilities and reported only six significant violators to EPA. The Agency's ability to

assess MDE's efforts takes on added importance because our limited review identified four significant violators that MDE did not report to EPA.

OVER REPORTING LEVEL 2 INSPECTIONS

MDE's reporting of Level 2 inspections needs improvement. Moreover, Region 3 needs to establish a formal criterion about how states and local air pollution control agencies should code Level 2 inspections into EPA's database. This criterion is needed because we found that MDE over reported the number of Level 2 inspections it performed.

We reviewed the 220 inspections that MDE performed at 60 major facilities during fiscal year 1996. Each was reported as a Level 2 inspection into EPA's database. However, based on the documentation in the inspection reports, we concluded that only 48 fulfilled the requirements of a Level 2 inspection. The remaining 172 inspections, or almost 80 percent, did not satisfy the requirements of a Level 2 inspection. MDE told us that these were not always intended to be Level 2 inspections, and the over reporting occurred because EPA's data system is unable to recognize non-Level 2 inspections. To the contrary, EPA personnel believe their database does recognize non-Level 2 inspections.

PENALTIES NOT ALWAYS REPORTED TO EPA

MDE did not always report negotiated and collected penalties into EPA's database. By not reporting this information, MDE prevented EPA from effectively evaluating the adequacy of its penalties. The Section 105 grant EPA awarded to MDE required the State to report enforcement actions for all major facilities, including penalty information, into EPA's database within 30 days of assessing the penalty. MDE did not fulfill this grant commitment. MDE contends that EPA's inflexible data system inhibited its ability to report accurately. EPA disagreed, and has indicated its data system did not cause the inaccurate reporting.

USING INSPECTION RESOURCES MORE EFFECTIVELY

MDE performed multiple inspections at some facilities without detecting violations of the Clean Air Act. For example, three facilities that were not targeted to receive multiple inspections underwent a total of 64 inspections, or an average of 21 per facility. MDE issued only one Notice of Violation for the 64 inspections, and none of the inspection reports provided insight into why the State continued to

inspect these same facilities time after time. MDE could have used its inspection resources more effectively if it targeted inspections to facilities where inspectors were more likely to detect violations.

RECOMMENDATIONS

We recommend that the Region 3 Administrator:

- ◆ Take action to ensure Maryland identifies and reports significant violators as required by its Section 105 grant and by EPA's Timely and Appropriate Enforcement Policy.
- ◆ Require Maryland to conduct and document thorough Level 2 inspections that determine a facility's compliance.
- ◆ As a condition of future grant awards, require Maryland to accurately report inspection and penalty information into EPA's database.
- ◆ Work with Maryland officials to better target and use inspection resources.

MDE RESPONSE

The OIG report has identified two areas where we agree that enhancements can be made. One enhancement is to improve the ability of the EPA's database to accurately capture Maryland's inspection and penalty data. The second enhancement is to improve documentation of inspection information, and we are currently in the process of implementing changes in this area.

The report misrepresents Maryland's performance with regard to Level 2 inspections. We disagree with the OIG's finding that facilities did not receive a Level 2 inspection. Regarding the non-reporting of significant violators, we disagree that four facilities should have been reported as such to EPA. Also, the findings and conclusions drawn relative to the usage of inspector resources are inaccurate and misleading. Our strong recommendation is to delete Chapter 5 in its entirety.

Also, there was no intention whatsoever to over report the number of Level 2 inspections or conceal penalty information from EPA.

EPA RESPONSE

The issues raised by the report are serious and worthy of the examination provided by the Inspector General. EPA concurs with the findings of this report. The OIG report has provided us with an opportunity to neutrally examine aspects of the MDE enforcement program that are not working as well as intended. EPA Region 3 is committed to work cooperatively with the MDE to address the

deficiencies identified in the OIG report so as to ensure protection of public health and the environment.

OIG EVALUATION

We acknowledge Maryland's affirmation that there is inaccurate and incomplete data in AIRS, and that MDE needs to document inspections better. However, after evaluating the remainder of the MDE's comments that disagreed with our report, our position remains unchanged.

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of this audit was to determine whether the Maryland Department of the Environment (MDE):

- ◆ Identified significant violators in accordance with EPA's Timely and Appropriate Enforcement Policy.
- ◆ Reported significant violators to EPA.
- ◆ Performed inspections that were sufficient to determine if a facility violated the Clean Air Act.
- ◆ Input the required information into EPA's Aerometric Information and Retrieval System.

Background

The Clean Air Act (CAA) of 1990 lists 188 toxic air pollutants that must be reduced. EPA estimates that more than 2.7 billion pounds

Air Toxics May Cause 3,000
Cancer Deaths Each Year

of toxic air pollutants are emitted annually in the United States. The list of air toxics touches every major industry, from the mining of base metals to the manufacture of high-tech electronics. EPA studies also show that exposure to these air toxics may result in up to 3,000 cancer deaths each year. Other adverse health effects of air toxics include: respiratory illness; lung damage; premature aging of lung tissue; as well as retardation and brain damage, especially in children.

The CAA separately regulates six of the more serious air pollutants — ground level ozone, particulate matter, carbon monoxide, sulfur dioxide, lead, and nitrogen dioxide. These six criteria pollutants are emitted in large quantities by a variety of sources. EPA sets national ambient air quality standards for each of these criteria pollutants and the states must take action to assure attainment with these national standards.

One criteria pollutant, ground level ozone, is a major problem in the Baltimore area, as well as other regions in Maryland. When Volatile Organic Compounds (VOCs) react with nitrogen dioxide in the presence of sunlight, it creates ground level ozone. This criteria

pollutant should not be confused with the “ozone layer” which protects the earth from the sun’s ultraviolet rays.

EPA Awards States Grant Money for Air Programs

Section 105 of the CAA provided the initial authority for federal grants to help state and local agencies prevent and control air pollution. Region 3 awards Section 105 grant money so that states can operate their air programs in accordance with their grant agreements. Throughout the years, the CAA increased the responsibilities of the states, while grant dollars have declined. However, revenue collected from facilities through the Title V Operating Permit Program should more than offset the decrease of Section 105 funding. The most recent Section 105 grant amounts provided by EPA Region 3 are shown below.

Fiscal Year	Amounts Awarded To States in Region 3	MDE Grant Amounts
1995	\$19,750,000	\$3,350,000
1996	\$17,700,000	\$3,200,000
1997	\$15,900,000	\$2,800,000

Before EPA awards each grant, it negotiates a work program with the state. The program contains specific work commitments the state agrees to perform. Region 3 uses the work program as the basis for evaluating the state’s performance under the grant. The work program encompasses activities such as inspections, monitoring, permitting, and enforcement, which includes identifying and reporting significant violators.

Types of Inspections

According to MDE officials, their inspectors conduct inspections at all major facilities each year to ensure they meet federal and state regulations. According to EPA policy, there are five different levels of inspections that can be performed at air pollution facilities. Level 0, commonly called a “drive by,” is the most basic inspection. EPA does not consider this level of inspection to be an acceptable compliance assurance method. A Level 4 inspection is the most thorough and time consuming. This type is generally done only when developing a legal case against the facility. To adequately evaluate a facility’s compliance with the CAA, the Section 105 grants required each state to perform at least a Level 2 inspection at stationary sources.

Types of Permits

To assess compliance during an inspection, the inspector should refer to the facility’s permits. A permit translates requirements of laws such as the CAA into individualized enforceable requirements. In other

words, the permit defines the parameters by which a facility must operate.

There are two types of permits. The first is a federally-enforceable construction permit. This type allows a facility to install or construct new equipment and modify its existing equipment. The second type is an operating permit which is not federally enforceable. Any violations of operating permits did not require MDE to place the facility on EPA's significant violator list unless the permit condition was a federal regulation. Therefore, EPA used the construction permit to measure a facility's compliance.

EPA Enforcement Procedures

When an inspector identifies a violation, MDE should issue the facility a Notice of Violation (NOV). An NOV specifies the type of violation and the regulations the facility violated. It may also require the facility to show what actions it will take to achieve compliance. If the violation meets EPA's definition of a significant violator, the state should report the facility to EPA for placement on the Agency's significant violator list. The Section 105 grant required MDE to identify and report significant violators in accordance with EPA's February 7, 1992, policy entitled *Timely and Appropriate Enforcement Response to Significant Air Pollution Violators*.

According to EPA's Timely and Appropriate Enforcement Policy, a significant violator is any major stationary source of air pollution, which is violating a federally-enforceable regulation. This policy required states to report significant violators to EPA within one month of detecting the violation, and to maintain the facility on EPA's list until it achieves compliance. After the violation is reported, the state and EPA should monitor the source until it achieves compliance. This includes determining a time schedule for achieving compliance and assessing a penalty, as appropriate. To resolve violations expeditiously, EPA stresses to each state the importance of identifying and reporting significant violators promptly.

State Reporting Requirements

The Section 105 grant allows MDE 30 days to enter significant violators, inspections, and enforcement actions, including penalty information for major sources, into EPA's Aerometric Information and Retrieval System (AIRS). In addition to reporting significant violators into AIRS, MDE must also report new violators to EPA via telephone. EPA conducts quarterly teleconferences to discuss both new and existing significant violators, and to promote a greater degree of teamwork between themselves and the states. However, if EPA is dissatisfied with a state's enforcement action, the Agency has the authority to override the state and assume the lead in resolving the violation.

During the last three fiscal years, MDE reported only six significant violators to EPA Region 3 despite performing over 2,000 inspections at major sources of air pollution.

Fiscal Year	Violators Reported	Major Source Inspections
1994	3	548
1995	0	771
1996	3	722
Total	6	2,041

Level 2 Inspections Require Numerous Evaluations

The State’s fiscal year 1996 Section 105 grant commitments required MDE to follow EPA’s Compliance Monitoring Strategy (CMS). The CMS provides that an on-site visit to a stationary source can be counted as an inspection only if it were a Level 2 inspection or higher. At a minimum, the following tests and evaluations must be performed, when applicable:

- ◆ For the intervening period after the last inspection, review records and log books showing the facility’s hours of operations, the types and amounts of VOC-containing compounds used, emissions test reports, CEM (Continuous Emissions Monitoring) performance test reports, and other records necessary to evaluate compliance with applicable regulations and permits.
- ◆ Record process items such as feed rates, temperatures, raw material compositions, and process rates. Also record control equipment performance parameters such as water flow rates and pressure, static pressure drops and electrostatic power levels.
- ◆ Visible emission observations.

The inspection must also include an assessment of the compliance status of all units within a source. These sources can be subject to various air pollution programs such as New Source Performance Standards, State Implementation Plans, Prevention of Significant Air Quality Deterioration, and National Emissions Standards for Hazardous Air Pollutants. Additionally, Region 3 requires the state to collect VOC samples where appropriate.

According to MDE's Section 105 grant and EPA's Compliance Monitoring Strategy, MDE was required to provide EPA a Comprehensive Inspection Plan listing the facilities that would receive Level 2 inspections. During fiscal year 1996, MDE scheduled and committed to do Level 2 inspections of all 179 major air pollution facilities in Maryland.

Scope and Methodology

We performed this audit according to the *Government Auditing Standards* (1994 Revision) issued by the Comptroller General of the United States as they apply to performance audits. Our review included tests of the program records and other auditing procedures we considered necessary.

To accomplish our objectives, we performed our review at MDE's office in Baltimore. While at the MDE office, we had discussions with permit chiefs and air quality program directors. We also interviewed managers, engineers, and inspectors from EPA Region 3. We attempted to interview State inspectors; however, MDE management would not allow us to discuss inspection results with their inspectors. Instead, they requested that we communicate any questions directly to them.

We reviewed the CAA, the Code of Federal Regulations, EPA's Timely and Appropriate Enforcement Policy, the CAA Compliance/Enforcement Guidance Manual, EPA's Compliance Monitoring Strategy, Maryland Air Regulations, and MDE's Comprehensive Inspection Plan. We also reviewed Section 105 grants EPA awarded to Maryland under the CAA and EPA's midyear reviews of the State's performance under these grants. During this audit, we used various printouts from AIRS and MDE's enforcement database to obtain information.

To evaluate MDE's enforcement of the CAA requirements, we reviewed the air quality files maintained at MDE's Baltimore office. These files contained items such as inspection reports, NOVs, permits, permit applications, test results, emission monitoring records, and correspondence.

We judgmentally sampled enforcement files for 60 of the 179 major stationary sources of air pollution in Maryland. For the 60 facilities we reviewed, MDE performed 307 inspections during fiscal year 1996. According to AIRS information input by MDE, 220 of the 307 inspections were Level 2. We reviewed each of these 307 inspections.

Facilities that we selected were of varying size and sources of various pollutants. During this analysis, it was sometimes necessary to review documents prior to fiscal year 1996. This was done to obtain historical information, such as how long problems persisted and previous inspection results. When necessary, we also reviewed the more recent enforcement information that occurred after the end of fiscal year 1996.

We also evaluated whether MDE accurately reported to EPA the penalty amounts it assessed and collected from violators of the CAA. We obtained printouts from MDE's penalty database and from AIRS for all penalties assessed from November 1991 to October 1996.

Our audit disclosed areas needing improvement that are discussed in Chapters 2 through 5. Our recommendations address the need to improve the quality of inspections, inspection report documentation, and MDE's reporting of enforcement information into AIRS.

We reviewed management controls and procedures specifically related to our objectives, but we did not fully review the internal controls associated with the input and processing of information into AIRS, or any other automated records system.

As part of this audit we also reviewed the Region 3 Air, Radiation and Toxics Division's Annual Report on Internal Controls for fiscal years 1994 through 1996. These reports were prepared to comply with the Federal Manager's Financial Integrity Act. We found that none of the weaknesses cited during our audit were disclosed in Region 3's annual reports.

Our survey began on November 27, 1996, and ended on April 29, 1997. As a result of the survey, we initiated an in-depth review on April 30, 1997. We completed fieldwork for the audit on June 30, 1997. We issued a preliminary summary of our findings to Maryland on June 26, 1997 and met with MDE management on July 15, 1997 to discuss the results of our audit. We also met with EPA officials on July 17, 1997.

We issued a draft report on August 5, 1997. MDE submitted its response to us on September 4, 1997. EPA Region 3 provided comments on September 15, 1997. Based on these responses and subsequent discussions with EPA and MDE, we made minor modifications to our report. However, our position remains unchanged on the major issues.

MDE's and Region 3's responses to our findings are summarized at the end of each chapter. We also provide our evaluation of these responses at the end of each chapter. MDE's complete response is included in Appendix A, and Region 3's complete response is included in Appendix B.

Prior Audit Coverage

An EPA Office of Inspector General audit report (E1KAF6-03-0082-7100115) issued on February 14, 1997, entitled *Validation of Air Enforcement Data Reported to EPA by Pennsylvania*, discussed Pennsylvania's inadequate reporting of significant violators to EPA and insufficient inspections. Other OIG audit reports addressed topics similar to those discussed in this report. For example, past reports disclosed that data submitted by the states through AIRS was incomplete, inconsistent, and untimely; AIRS data was not reliable; and, states relied on supplementary information and manual reports from other databases.

Past audit reports have also identified concerns with other aspects of EPA's oversight of state air enforcement programs. These include items such as inadequate penalty calculations, untimely completion of enforcement actions, EPA's reluctance to withhold funds from states that do not complete grant commitments, and inadequate publicity of enforcement actions. EPA Office of Inspector General reports discussing these topics include:

- ◆ *Region 6's Enforcement and Compliance Assurance Program* (E1GAF5-06-0056-6100309, September 26, 1996)
- ◆ *Region 5's Air Enforcement and Compliance Assistance Program* (E1GAF5-05-0045-6100284, September 13, 1996)
- ◆ *EPA Regional Management of Clean Air Act Section 105 Air Grant Program* (E1KAE5-24-0015-5100510, September 29, 1995)
- ◆ *Follow-up Review on EPA's Mitigation of Penalties* (E1GMG4-05-6009-4400107, September 15, 1994)
- ◆ *Capping Report on the Computation, Negotiation, Mitigation, and Assessment of Penalties Under EPA Programs* (E1G8E9-05-0087-9100485, September 27, 1989)

◆ *Review of Region 5's Stationary Source of Air Pollution Compliance and Enforcement Program* (E1K67-05-0449-80743, March 11, 1988).

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CHAPTER 2

SIGNIFICANT VIOLATORS NOT ALWAYS REPORTED TO EPA AND NO EVIDENCE OF ADEQUATE INSPECTIONS

MDE's inspection program needs improvement. For almost half of the files we reviewed, it was not possible to determine whether the State did enough to identify significant violators of the Clean Air Act. This occurred because there was no evidence in the State's files to show that the inspector did the evaluations required for Level 2 inspections. Moreover, several MDE inspectors did not complete the record reviews and evaluations required. As a result, inspection reports were often not thorough enough to show whether a facility complied with EPA requirements, as well as State and federal regulations. Without this documentation, there was no assurance the State's inspectors determined that the facility complied with the Clean Air Act and the facility's applicable permits. Also, without complete inspection reports and documentation of violations, MDE does not have a thorough compliance history for each facility. This limits MDE's ability to identify chronic violators and effectively plan for future inspections.

From the Comprehensive Inspection Plan that MDE submitted to EPA for fiscal year 1996, we selected 60, or 34 percent, of the 179 major facilities scheduled for Level 2 inspections. At these 60 facilities, the State conducted a total of 307 inspections of which 220 were reported as Level 2 inspections (MDE performed multiple inspections at most facilities). We reviewed MDE's enforcement files and inspection reports for these 60 facilities and for 26, or almost half of the facilities, either MDE did not perform the required reviews and evaluations, or the inspection report did not substantiate that MDE conducted a Level 2 inspection.

Because many of the State's inspection reports did not show which evaluations inspectors performed, EPA cannot assess the adequacy of Maryland's air inspection program. It is imperative that EPA assess MDE's inspection efforts, especially because during the past three fiscal years, MDE performed more than 2,000 inspections at major facilities and reported only six significant violators to EPA. Region 3's ability to assess MDE's efforts takes on added importance because our limited review identified four significant violators that MDE did not report to EPA.

**Significant Violators
Not Reported**

EPA personnel discussed two of these significant violators during a quarterly conference call with MDE. Prior to the phone call, the EPA official responsible for oversight of MDE’s air enforcement program reviewed EPA’s database to determine if MDE had recently issued NOVs to any major facilities. During this review, he found the NOVs MDE issued for these facilities. According to EPA personnel, when they mentioned these two facilities to MDE, State officials said that these violations were “isolated incidents” and were not significant violators. Based on MDE’s explanation, EPA did not pursue the issue further. MDE officials provided a similar explanation to us. However, contrary to MDE’s explanation, our review of the files disclosed that neither of these violations were “isolated incidents.” One facility received three NOVs in seven days, while the other facility received two NOVs in a two week period.

For one of these significant violators, a paper manufacturer, MDE identified four opacity violations in two weeks. Opacity violations occur when the plume of smoke from a stack exceeds an allowable density, indicating that the facility is emitting excess pollution. Here, the source was a boiler. State and federal regulations require that this facility maintain an opacity reading of zero percent, that is, no smoke should be visible from the stack. The four opacity violations ranged from 10 to 46 percent, well in excess of the allowable limit. Based on the number of violations and their severity, this was a situation where MDE should have reported the facility as a significant violator.

To confirm our conclusions, we requested that EPA review MDE’s enforcement information for these two facilities. The EPA official who originally prompted dialogue about these two violators agreed with our determination that the facilities were significant violators and should have been reported to EPA.

**Level 2 Inspections
Not Documented
Adequately**

It is essential that the Level 2 inspections MDE conducts include the tests, evaluations, and data reviews prescribed for this type of inspection. For example, at a printing facility MDE must review the hours of operation and the amount of inks used and their specific VOC content. This is needed to ensure that the facility is not violating the pollution limits in its permits. Similarly, the emissions data and CEM performance data show daily and continuous information about the amounts of pollution emitted. Without complete inspection reports, it was not possible to tell how much, if any, of the facility’s records the inspector reviewed.

MDE inspection reports did not always include the recorded information required for a Level 2 inspection. For example, at facilities with incinerators, not all the inspection reports recorded a

review of the operating temperatures of a facility's incinerator since the last inspection. This information indicates among other things the number of days reviewed, that temperature gauges did or did not operate, or when the facility did not operate its incinerator at prescribed operating temperatures. Recording other types of operating data would have provided added insights about a facility.

MDE Claims Record Review Is Not Always Necessary

MDE officials contend that operating parameters such as hours of operation, raw materials usage, and production amounts are not relevant to determining compliance at a facility. They said that it is only important if the facility's permit contains specific limits on these types of operating parameters. When specific limits were not mentioned in the permit, MDE officials claimed that these records were used solely to support the facility's annual emissions statement.

As required by their permit, each year facilities must submit an emissions statement to MDE. This is a statement certifying the amount of emissions for each regulated pollutant. MDE requires facilities to maintain records supporting the emissions statement for a period of at least three years. Many of the records used to prepare this emissions statement are required to be reviewed during a Level 2 inspection. However, MDE personnel said that they review the records supporting the emissions statement only when a statement appears suspect.

We believe that in many ways, the emissions statement is the ultimate barometer of a facility's compliance with the Clean Air Act. Therefore, it is crucial that the inspector reviews the records used to prepare the emissions statement in order to verify exactly how much the facility polluted the previous year.

EPA personnel believe that record reviews, such as those supporting the emissions statement, are also a valuable part of any inspection. They contend that variables such as material usage and periods of operation affect a facility's emissions, and may identify problems even if the emissions statement does not. According to EPA officials, it is important that records are kept by facilities and that inspectors review those records to independently verify a facility's assessment of their own compliance.

It would appear that MDE agrees with EPA, because the State consistently requires facilities to maintain these records as part of complying with its permit. It is not clear, however, why MDE would

require facilities to maintain these records, but rarely review them. Moreover, EPA's Compliance Monitoring Strategy clearly requires that MDE review these types of records in order to satisfy the requirements of a Level 2 inspection.

We recognize that each inspector uses judgement when performing inspections. At a chronic violator, an inspector should review most of the daily operational results. Sources that have a history of compliance could be reviewed less often, but when they are reviewed, they should have all of the same data examined. Both MDE and EPA management need to know how much data an inspector reviewed to assess the adequacy of the inspection. However, most of the inspection reports we reviewed only indicated that the facility was in compliance, or contained performance data only applicable to the day of the inspection.

Without recording and evaluating the detailed information discussed in EPA's Compliance Monitoring Strategy, for the period since the last inspection, assessing the inspector's efforts was not possible. This information also could have been used by MDE to determine when the next inspection should take place. For example, a facility that emits 98 tons per year, while its permit allows 100 tons per year, should receive more scrutiny than a facility emitting 50 tons and having a permit allowing 100.

**Adequate Level 2
Inspection Would
Have Detected
Unpermitted
Equipment**

Before a facility installs or modifies equipment, the owner must obtain a construction permit from MDE. At facilities regulated by the Clean Air Act, two types of equipment require permits. The first and most important permit is for equipment that is a source of air pollution. The second is for equipment that is designed to control air pollution.

**Violations At One Facility
Not Detected For Years**

At a facility which painted diesel truck engines, there were two VOC sources installed in 1991, without a construction permit. MDE did not identify these violations for five years despite performing other inspections during this time. During fiscal year 1996 alone, MDE conducted five inspections at this facility, but did not identify either source that was operating without a permit. It was not until fiscal year 1997, that MDE identified the violations and requested the facility to apply for a permit.

This facility also had two paint spray booths under one registration number since 1979. MDE was also not aware of this problem. Rather, the State believed that the new spray booth had replaced the existing booth. However, the facility operated both spray booths for 18 years

before MDE discovered the additional booth. During an October 1996 inspection, the inspector indicated that the two spray booths needed individual registration numbers. It was not until June 1997, that MDE received applications for the two spray booths.

An adequate Level 2 inspection should have identified any new or unreported sources since the time of the last inspection. Had MDE inspectors compared the facility's permit to the equipment in the plant, as required by a Level 2 inspection, the two VOC sources and the spray booths would have been identified more timely.

Both violations at this facility were for constructing and operating "pollution-creating" equipment without a permit, a more serious offense. MDE officials said they did not consider this facility a significant violator, because it did not install a major piece of equipment. EPA's Timely and Appropriate Enforcement Policy does not differentiate between the size of equipment, only the size of the facility, and this facility was a major source. Therefore, these violations meet the definition of a significant violator and should have been reported to EPA.

Some Inspection Reports Totaled
Only Five Handwritten Lines

We also reviewed MDE's enforcement file for a facility that used four melting furnaces to produce glass. During fiscal year

1996, MDE performed a two-hour and twenty minute inspection at this facility that had two of its furnaces operating. The inspector looked for visible emissions, and noted temperature readings and production rates for the day of the inspection. This information comprised the entire inspection report, which totaled five handwritten lines. We saw no evidence that MDE reviewed the facility's annual operating parameters as required by the EPA guidance for a Level 2 inspection. These included items such as hours of operation, operating temperatures, and fuel usage. Moreover, the information that was recorded on the inspection report and reviewed by the inspector was only for one day and not for the intervening period since the last inspection as required by the Compliance Monitoring Strategy.

The narrative in the inspection report represented a small portion of the two-hour and twenty minute inspection. There is no description of what the inspector did for the majority of the inspection. Because so little is written on the inspection report, we could not verify whether MDE determined compliance at this facility. MDE supervisors also cannot assess the quality of the inspection performed. Likewise, if EPA air enforcement staff were to review this file for fiscal 1996, they

would not be able to make a compliance determination of the facility, or evaluate the adequacy of MDE's inspection program.

**Documented
Inspections Are
Essential**

There are many reasons why it is important to perform thorough inspections that are adequately documented. For example, adequately performed and documented inspections become more important when the facility's personnel know the inspector is coming before the inspection begins.

Announced Inspections
Require More Thorough
Review

MDE personnel indicated that whenever they planned to perform a Level 2 inspection, they usually provided the facility two to three weeks notice of a pending inspection. This is to assure that the

appropriate plant personnel will be present at the time of the inspection, and that most or all of the equipment is operating. However, at one facility that MDE inspected 21 times during fiscal year 1996, inspection reports indicated that the facility was not operating for 11 of the inspections.

Providing advance notice of an inspection gives the facility time to correct any irregularities that may exist at the plant. As a result, at the time of the inspection, the inspector may not be observing "real conditions" at the facility. We do recognize that circumstances sometimes dictate that the inspectors provide advanced notice in order to perform an effective inspection. However, even with advance notice of an inspection, the State inspector often found only a small portion of the plant in operation, and generally, there was no evidence in the State's files that MDE conducted a follow-up inspection.

When announced inspections are necessary, certain aspects of the inspection gain more importance. Because the inspector may not be observing "real conditions," evaluations of year-round plant operations become more critical and should be evaluated. For example, facilities are required to maintain log books showing gauge readings taken from the plant's equipment. Reviewing these readings helps ensure that equipment is operating as designed. While checking the facility's gauges during the inspection evaluates the plant's performance on the day of the inspection, a review of the log books helps verify year-round performance.

Inspection Reports Usually Not
Thorough Enough To Determine
Compliance Histories

Without documented inspections, MDE and EPA cannot easily establish a compliance history of the

facility. Prior to performing an inspection, the MDE inspector should review the facility's file to become familiar with applicable regulations and to ascertain a compliance history of the facility. This information would enable the inspector to develop an effective inspection strategy prior to the site visit. It would also assist the State in prioritizing their inspections for the upcoming year.

In the files we reviewed, there was often little information describing what happened during the previous inspections. According to MDE officials, the inspectors only document problems found at a facility. They indicated that if the MDE inspector finds the facility to be in compliance, very little is noted on the report. Under this arrangement, some enforcement files may go year after year with little information about the facility.

EPA Aware It Could Not
Evaluate MDE's Air
Enforcement Program

Some Region 3 personnel disclosed that they were aware that MDE's inspectors were not thoroughly documenting inspections. However, EPA did not take action to improve

MDE's inspection program, or to obtain the information needed to assess MDE's inspection efforts. Through the Section 105 grant, EPA should have placed more emphasis on requiring MDE to document inspections. This would have given EPA the ability to evaluate the State's performance and determine whether or not MDE should have reported more significant violators to EPA.

CONCLUSION

The 60 enforcement files that we reviewed represented 34 percent of the major facilities in the State. A significant number of these files did not contain evidence that MDE performed an adequate inspection. Moreover, in some instances, we determined that MDE did not perform the required reviews and evaluations. We believe the conditions we are reporting are indicative of MDE's entire inspection program.

Presently, MDE's inspection practices do not afford EPA or MDE managers the ability to assess the adequacy of Maryland's inspection program. This inability also hinders EPA oversight of the State, and provides the public less assurance that Maryland's air inspection program is achieving its intended goals.

RECOMMENDATIONS

We recommend that the Region 3 Administrator enforce the requirements of the Section 105 grant awarded to MDE to ensure that the State:

1. Identifies and reports significant violators in accordance with EPA's Timely and Appropriate Enforcement Policy.
2. Adequately documents inspections and shows evidence of conducting Level 2 inspections that are thorough enough to determine a facility's compliance with the Clean Air Act.
3. Provides refresher training to state personnel on requirements of a Level 2 inspection.

MDE RESPONSE

We are disappointed that the OIG focused only on the federally enforceable aspects of Maryland's overall program and chose not to review Maryland's inspection and compliance program holistically. Accordingly, the comprehensiveness and integrity of Maryland's inspection and compliance program is lost in the narrowness of the audit. The final report should recognize Maryland's program and the benefits it provides. We agree that MDE could improve documentation of inspection information, and we are currently in the process of implementing changes in this area. We are improving our inspector training and will be developing and using an enhanced compliance checklist.

The OIG claimed in the draft report that state inspectors were not allowed to discuss inspection results with the OIG and that MDE asked that all communication occur between MDE management and the OIG. This is not true. Since the audit was basically to be conducted as a paper file review, it was agreed that it would be most beneficial if the OIG worked directly with MDE's managers. In view of these facts, we request that the final report language reflect the agreed-upon protocol.

The OIG states that "During the last three fiscal years, MDE reported only six significant violators to EPA Region 3 despite performing over 2,000 inspections at major sources of air pollution." We are curious as to why reporting a low number of significant violators is viewed as something bad.

As evidenced in a December 11, 1996 memo from Region 3's Director of the Air, Radiation and Toxics Division, Region 3 and MDE agreed that it does not make sense to report facilities having minor transient violations as significant violators. Three of the four facilities believed by the OIG to be significant violators were facilities having transient episodes of visible emissions from boilers. MDE and the Region discussed the situations and jointly agreed that these were not of significant environmental impact to warrant listing as significant violators. These cases are simply not worthy of being listed as significant violators, and the Region has concurred previously with us on this. Also,

the Region has never mentioned to us a concern that MDE's inspectors were not thoroughly documenting inspections.

The fourth source concerns constructing without a permit, very small sources of VOCs, in an area of the State that is in attainment for ozone. The important concept to grasp is that for construction without a permit to be significant, not only must the facility be a "major" source (using the CAA definition), but the constructed emission source itself must also be "major." We viewed this particular situation as a minor violation, and it was therefore not reported as a significant violator to EPA. In view of the facts presented above, we request that the final report reflect the fact that the four facilities in question were not significant violators.

The report states that of the 60 files reviewed, 26 of the facilities did not receive Level 2 inspections. We continue to disagree, however, that these 26 facilities did not receive Level 2 inspections. A review of the 26 files revealed a number of cross-cutting themes. We request that the final report recognize that when conducting a Level 2 inspection, it is not always necessary to:

- ◆ Conduct a formal Method 9 visible emissions observation,
- ◆ Review records that are required to be kept only to ensure that facilities have a basis to substantiate their yearly emission certification submittals,
- ◆ Sample VOC-containing materials,
- ◆ Ensure that all pollution sources are operating at the time of the inspection, or
- ◆ Perform an inspection that requires a specific amount of time.

EPA RESPONSE

The issues raised by the report are serious and worthy of the examination provided by the Inspector General. EPA concurs with the findings of this report. The OIG report has provided us with an opportunity to neutrally examine aspects of the MDE enforcement program that are not working as well as intended. EPA Region 3 is committed to working cooperatively with the MDE to address the deficiencies identified in the OIG report so as to ensure protection of public health and the environment.

We concur with the main themes and recommendations expressed in this chapter, namely, Significant Violators (SVs) are not being reported by the MDE, not all inspections the MDE has performed were Level 2 inspections, and Level 2 inspections performed were not documented adequately.

EPA Region 3 believes that MDE is not fulfilling its responsibilities in the identification and reporting of SVs. This is illustrated when one examines data from the last three fiscal years. During this period, MDE identified three SVs in fiscal year 94, none in fiscal year 95, and three SVs in fiscal year 96. During the same time period, MDE performed more than 2,000 inspections at major facilities. As SV reporting is used as an indicator for compliance, this would indicate an observed

compliance rate that is extraordinarily high. This may be the result of a truly exceptional compliance program, inadequate inspections, or under-reporting. Regretfully, the lack of documentation in case and inspection files, which is also a subject of this report, do not permit EPA Region 3 to determine to what extent one or a combination of the above has resulted in the exceptionally high compliance rate.

To prepare for quarterly Timely and Appropriate (T&A) calls with MDE, EPA reviews the AIRS database for all major sources in Maryland to see if any have been placed out of compliance. This is normally not a very productive effort as there is little violation related information entered into the AIRS database by MDE. Any discussion of sources identified through the T&A calls is dependent on MDE providing an explanation of the violation and the compliance history of the source. This is often not productive either, as illustrated by the example cited in the OIG report of two sources that the EPA questioned as being SVs. These were dismissed by MDE as “isolated incidents” not worthy of the source to be listed as SVs. Upon further review, it was found that these were SVs.

Given the number of sources inspected, the requirements of Level 2 inspections, and MDE’s available resources, EPA Headquarters’ Office of Enforcement and Compliance Assurance was concerned that it was likely that these inspections did not meet the minimal Level 2 requirements. EPA Region 3 has raised this concern on a number of occasions. Most recently, on May 15, 1997, EPA Region 3 sent a letter to the MDE requesting an explanation for the high number of inspections. This was followed up during the May 29, 1997, Section 105 midyear grant conference call with MDE. Moreover, Region 3 has tried to persuade MDE to conduct fewer, but more thorough inspections.

Adequate case file and inspection documentation is a crucial element in an effective enforcement and regulatory program. EPA relies on MDE’s thorough documentation of inspection results to carry out our oversight and enforcement responsibilities under the Clean Air Act. Where inadequate inspection documentation exists, EPA has no way to evaluate the compliance status of a source or the extent of MDE’s efforts to determine the source’s compliance status. Moreover, it is difficult for MDE to understand the historical operations and process changes at a facility.

An inspection is not an isolated activity, but an activity which is dependent on what knowledge has been gathered before. The inspection report provides a historical record of facility operations, emission sources, and problems. This facilitates future comprehensive and quality compliance determinations. From experience, when EPA conducts an inspection at a facility for which there is inadequate documentation on file, the inspection takes substantially longer and violations are missed. This should be the same for the state inspector, and it is poignantly illustrated in the OIG report by the example of the spray booth that went unregistered and undetected for many years.

Regarding Recommendation Number 1, in the MDE’s fiscal year 1997/98 grant, they are to provide to EPA on a quarterly basis, hard copies of NOV’s and other noncompliant determinations for major sources. Also, if there is confusion by the MDE as to the requirements of the Timely and Appropriate Enforcement Policy, we will initiate new attempts to explain to MDE what is intended by the policy.

In response to Recommendation Number 2, EPA Region 3, along with MDE, will develop an audit plan to review a sampling of MDE inspection reports on a yearly basis to determine if Level 2

inspections were accomplished and adequately documented. The audit plan will be a grant commitment.

Concerning Recommendation Number 3, EPA will work with MDE to identify the type of training available for MDE inspectors to better prepare them to perform and document a Level 2 inspection.

OIG EVALUATION

The overall theme of our audit was to evaluate the effectiveness of EPA's oversight of Maryland's air enforcement program. In large part, this entails determining whether Region 3 received all of the information it needed from the State. This would include information provided through the AIRS database, teleconferences between Maryland and EPA, and the State's enforcement files. It also entails evaluating how EPA reacts when concerns arise. As a result, we focused our efforts in these areas. The objective of this audit was not to review Maryland's entire compliance and inspection program.

Maryland claims that it has an exceptional air enforcement program. However, we were unable to verify this because of the lack of documentation in MDE's enforcement files, and the erroneous and incomplete data in AIRS. Likewise, Region 3 was unable to perform effective oversight of MDE's program without receiving the necessary information. At the beginning of this audit, we met with the Region 3 staff responsible for the oversight of Maryland's air enforcement program. At that time, they expressed concern regarding the lack of documentation in MDE's files.

We disagree with MDE's remarks about interviewing its inspectors. We would have preferred to deal directly with the inspectors; however, MDE management did not afford us this opportunity. Our previous experience has been that discussion with inspectors has benefitted the audit process.

Regarding the four significant violators that we identified during our audit, we still believe MDE should have reported these facilities as significant violators. As stated in EPA's response, Regional officials agreed that two facilities were significant violators. Subsequently, we provided EPA the State's enforcement information for the other two. Region 3 personnel now agree that all four were significant violators.

Concerning EPA's memorandum of December 11, 1996, we acknowledge that Region 3 and MDE agreed that it does not make sense to report facilities having minor and transient violations as significant violators. However, the violations we found were not minor and transient.

We also disagree with MDE's contention that Level 2 inspections were conducted at the 26 facilities we cited in our report. MDE's response to our draft report described in detail why the State believed it conducted a Level 2 inspection at these facilities. However, it is important to note that when we did refer to particular tests not being performed by MDE inspectors, the test was applicable to that facility. For example, we did not state that a formal Method 9 visible emissions observation should be conducted for all inspections, we only mentioned it when appropriate. Also, we did not report that an inspection should last a minimum amount of time in order to be considered Level 2, or that all equipment must be operating. We also did not state that a record review is always warranted

when conducting a Level 2 inspection. Instead, we cited the lack of record reviews when MDE emphasized the maintenance and availability of records in the facility's permit requirements. Also, we did not state that VOC sampling is always warranted as part of a Level 2 inspection. We recognize that there are other methods of determining compliance at facilities that use materials containing VOCs.

Concerning MDE's question about why reporting a low number of SVs is "bad," we offer the following. We agree that, "...an observed compliance rate that is extraordinarily high" is something to be proud of. However, MDE's inadequate inspection procedures, its lack of documentation in inspection reports, and our identifying SVs the State did not report, make the accomplishment suspect. When MDE improves its inspection documentation and procedures, we believe the State will identify more SVs.

CHAPTER 3

OVER REPORTING LEVEL 2 INSPECTIONS

MDE's reporting of Level 2 inspections needs improvement. Moreover, Region 3 needs to establish a formal criterion about how states and local air pollution control agencies should code Level 2 inspections into EPA's database. During fiscal years 1995 and 1996, MDE reported to EPA that each year it performed more than 700 Level 2 inspections. Each time MDE reported that it did a Level 2 inspection, it signified that the State adequately assessed the facility's compliance, and fulfilled its grant commitment to EPA. However, we found that MDE over reported the number of Level 2 inspections it performed.

Chapter 2 of this report addressed whether MDE fulfilled its commitment to EPA, to perform at least one Level 2 inspection at major facilities. During that review, when there were multiple inspections at a facility, we grouped the individual inspections to determine if combined, they fulfilled the requirements of a Level 2 inspection. For purposes of this Chapter, we reviewed the 220 Level 2 inspections performed at 60 facilities. MDE reported each of these inspections as a Level 2 inspection in EPA's database. Based on the documentation in the inspection reports, we concluded that only 48 fulfilled the requirements of a Level 2 inspection. These 48 inspections were performed at 34 facilities. The remaining 172 inspections, or almost 80 percent, did not satisfy the requirements of a Level 2 inspection.

MDE acknowledged that all 700 inspections were not Level 2 inspections. Some of these inspections were only minutes long, and in other cases the plants were not in operation during the inspection. MDE reported that it did a Level 2 inspection although this type of inspection cannot be performed at a facility that is not in operation. At a facility that refines soybean oil, MDE received credit for nine Level 2 inspections. We found that none of these inspections satisfied the criteria for a Level 2 inspection.

Five Minute Inspection At An Inoperative Facility Does Not Satisfy Level 2 Requirements

Based on the information MDE reported to EPA, the State received credit for conducting 13 Level 2 inspections at a facility

that operated a thermal soil remediation plant. However, similar to the results discussed in Chapter 2, the documentation in MDE's files does not show that each was a Level 2 inspection. Moreover, for several visits the inspector's description of the records reviewed and evaluations performed indicated the inspection was not a Level 2. When we combined the records reviewed and evaluations performed during seven of the visits, we believe they equated to only one Level 2 inspection. The plant was not in operation for the remaining six inspections, and a Level 2 inspection cannot be performed when a facility is inoperative. For three of these inspections, the inspector only spent five minutes at the facility. For the other three inspections, the inspector spent only up to 15 minutes at the facility. EPA personnel estimate that a properly conducted Level 2 inspection would usually take several hours. In effect, MDE did one Level 2 inspection, but reported 13 to EPA.

MDE Inspections Reported As Level 2

When asked if these short visits were in reality Level 2 inspections, MDE told us the individual visits were not intended to be Level 2 inspections, but in total at least one Level 2 inspection was conducted. They said that because there is only one code available to them, an "08," for state inspections, they had no other recourse but to report 13 Level 2 inspections to EPA. According to MDE personnel, there is no AIRS document or reference guide found that says the "08" action code should only be used for "Level 2 inspections." In response to our preliminary finding, in July 1997 MDE wrote:

The [MDE] and Region 3 have been aware for some time that there has not been significant flexibility in entering inspections in AIRS. We have been telling EPA for quite some time now that there is a need for additional codes for various types of inspections so that only true Level 2 inspections are entered as such. Since this has now been raised as an issue, the Region has committed to working with us to create additional codes so that only true Level 2 inspections will be coded as such.

When discussing MDE's response to our preliminary finding with EPA, they stated they had not committed to create additional codes. EPA personnel indicated they already created new inspection codes at MDE's request in 1991. This was done to enable the State to more accurately report its inspections. The codes created were for observations, permit to operate inspections, and complaint inspections.

The State now contends that it needs another code, in addition to the "08" code, to accurately report Level 2 inspections. Region 3 personnel told us they believed, and also believed MDE knew, that an

“08” signified a Level 2 inspection was conducted. Furthermore, Regional officials believed that other Region 3 states were using only the “08” for Level 2 inspections without over reporting.

**Accurate Inspection
Information
Important To EPA**

EPA Region 3 and Headquarters personnel rely on the Level 2 data reported by MDE. Both monitor the number of Level 2 inspections planned and completed by the states. This information is used to ensure that each state fulfills its commitments to EPA, and to measure the effectiveness of the states’ inspection and enforcement programs. Inaccurate information hinders EPA’s ability to oversee a state’s efforts. It is also noteworthy that EPA used the information reported to inform Congress about accomplishments.

Region 3 personnel and EPA Headquarters told us they speculated for some time that MDE over reported the number of Level 2 inspections. However, neither took action to verify the over reporting. After the new codes were created in 1991, Region 3 personnel and EPA Headquarters stated that MDE had not mentioned any problems with entering Level 2 inspection information into EPA’s database. In any event, EPA did not communicate to the Region 3 states, in writing, a formal criterion for reporting inspections. Region 3 needs to clarify how Level 2 inspections, short observations and other types of inspections are to be reported, in order to eliminate over reporting.

RECOMMENDATIONS

We recommend that the Region 3 Administrator:

- 1) Establish a formal criterion about how states and local air pollution control agencies should code the Level 2 inspections into EPA’s database.
- 2) Advise Region 3 states and local air pollution control agencies in writing to use the formal criterion established for reporting Level 2 inspections into EPA’s database.
- 3) Ensure that all Region 3 states accurately report Level 2 inspections into EPA’s database. This can be accomplished during midyear evaluations of the state, by verifying the information states provide EPA.
- 4) Discuss with EPA Headquarters the need to establish a national code that all states can use to input Level 2 inspections into EPA’s database.

MDE RESPONSE

We concur with the recommendations contained in the draft report concerning entry of inspection data in AIRS. EPA's guidance on the entry of inspections in AIRS has been less than clear. Currently, the system is unable to characterize our non-Level 2 state inspections as anything other than a Level 2 inspection. It has been Maryland's experience that AIRS is an inflexible, non-user-friendly database.

MDE supports EPA's desire to collect and report consistent national environmental data, including the quality and quantity of inspections conducted. It is important to have specific codes to account for the different type of inspections and field activities. It is not clear to us why there has never been a specific code set up for Level 2 inspections.

It needs to be made clear in the final report that there was absolutely no intent to over report the number of Level 2 inspections conducted in Maryland [emphasis added by MDE]. We were merely using an inflexible database as best we could to account for all our inspection activity. The key here is that Maryland uses AIRS to account for all inspection activity, not just that required by federal requirements.

EPA RESPONSE

We agree with the findings expressed in this chapter and agree with the proposed recommendations. EPA Region 3 has been proactive in conducting yearly training for the past seven years for all states and counties to provide updates and refresher training on the use of the AIRS data base system. MDE contends that it was unaware of how to accurately enter their various inspections into the AIRS data base. This does not appear to be a problem in other states, though Region 3 will be looking into this issue in other states. MDE already has numerous codes they can use in the AIRS data base to reflect the different types of inspections performed during a fiscal year. EPA will discuss these codes with MDE staff to make sure they understand their proper use.

Concerning Recommendation Numbers 1, 2, and 4, Headquarters has been contacted about the problem of coding various levels and types of inspections into the AIRS data base. It appears that changes will be made to the national AIRS policy to accommodate the concerns raised in this report. Region 3 states will then be notified in writing in reference to the current procedures of inputting Level 2 inspections into AIRS using the "08" code.

In reference to Recommendation Number 3, the responsibility rests with the State because the data inputted by the states is done on a daily basis which cannot be validated by EPA. However, as the recommendation mentions, EPA will review select facility files on a regular basis to assure that the data base reflects what is contained in the files.

OIG EVALUATION

We should point out that, we did not determine, or report on MDE's intent for over reporting inspections. However, we did determine some of the causes for the over reporting. MDE cites the inadequacies of EPA's database and the lack of EPA guidance as the cause for the over reporting of Level 2 inspections. EPA claims that in the past, it has accommodated MDE with additional codes and thus, this problem should not have persisted. The additional codes that EPA had already created

for MDE should have alleviated much of this over reporting, but it did not. In any event, both EPA and MDE need to be clear on how the various types of inspections should be coded into AIRS. Establishing the formal criterion for coding Level 2 inspections and performing periodic evaluations of MDE's inspection information entered into AIRS should ensure that inspections are coded correctly. It is troubling that MDE did not resolve its reporting problems with EPA. It is also troubling that EPA — through its oversight — did not correct this problem.

CHAPTER 4

PENALTIES NOT ALWAYS REPORTED TO EPA

MDE did not always report negotiated and collected penalties into EPA's database. By not reporting this information, MDE prevented EPA from effectively evaluating the adequacy of its penalties. The Section 105 grant EPA awarded to MDE required the State to report enforcement actions for all major facilities, including penalty information, into EPA's database within 30 days of assessing the penalty. MDE did not fulfill this grant commitment.

To evaluate Maryland's reporting of penalty information in EPA's database, we reviewed the penalties MDE assessed from November 1991 through October 1996. There were 19 major facilities that were assessed penalties by MDE during this time. For all 19, we compared information in the State's database to the information MDE reported to EPA.

MDE Not Updating Into EPA's Database

Both databases contained similar amounts of penalties assessed. However, MDE seldom reported any subsequent information. Often, MDE and the facility would agree on a negotiated or settled amount that was less than originally assessed. However, MDE did not report this negotiated amount into EPA's database. Therefore, EPA was unable to evaluate the State's negotiations with the facilities. The databases also contained different amounts of penalties collected. This occurred because MDE did not enter the collected amounts. Several penalties have appeared as uncollected in EPA's database for as long as five years. At the time of our review, EPA's database showed \$375,350 in outstanding penalties, while MDE's database showed that all penalties were fully collected.

Penalty Amounts	EPA Database	MDE Database
Assessed	\$462,300	\$462,300
Settled	None Reported	\$313,850
Collected	\$ 86,950	\$313,850
Outstanding	\$375,350	\$0

According to MDE officials, EPA's database is not a matter of official record, and it is antiquated, unreliable, and not user friendly. MDE personnel also told us that to compensate for EPA's inadequate database, they developed their own penalty tracking system which contains updated and reliable penalty information. EPA personnel were unaware that Maryland had its own database to track penalty information. In any event, it appears to us that MDE should have entered the same information into EPA's database.

EPA Attempted To Update Penalty Information

The only penalty information available to EPA for Maryland is what is entered into the Agency's database by MDE. At the annual State Air Director's meeting in 1996, EPA personnel provided Region 3 states penalty information derived from EPA's database. The states were instructed to review the data and notify EPA of any discrepancies. Even though MDE's amount of collected penalties was significantly under reported, Maryland did not alert EPA of this problem.

RECOMMENDATION

We recommend that the Region 3 Administrator as a condition of future grant awards, require MDE to accurately report into EPA's database penalties assessed, settled and collected.

MDE RESPONSE

We agree that there should be improvements to the AIRS database to accurately capture Maryland's penalty data. We are anxious to have our good penalty record be a part of the national picture on enforcement of air pollution requirements. However, the AIRS database inhibits our ability to do this because of its inflexible set-up that attempts to put a one size fits all approach on penalty activity.

There was no intention whatsoever to attempt to conceal data or information from EPA and we ask that this be made clear in the final report [emphasis added by MDE]. It would have been to our advantage to have accurate penalty activity in the national AIRS database, but Maryland's proposed, assessed, and settled penalties, as well as time payments cannot be accommodated by the current AIRS setup.

EPA RESPONSE

We agree with the findings expressed in this chapter and agree with the proposed recommendation. EPA's national goal is to have all federal, state and local enforcement actions for Clean Air Act violations result in a penalty sufficient to achieve effective deterrence. EPA requires the states to report assessed and collected penalties into the AIRS database as matter of record for the resolution of SVs. It is important that this information be reported fully and accurately.

Concerning the Recommendation, requiring MDE to report into EPA's database penalties assessed, settled and collected be made a condition of future grant awards, Region 3 concurs and will attempt to incorporate this into the fiscal year 1999 grant commitment.

OIG EVALUATION

As with the previous chapter, we did not report on MDE's intent for under reporting, but we did disclose the facts surrounding this issue. First, AIRS can accommodate partial payments and the amounts collected. Second, it is important to note that MDE seldom entered information about collected penalties. This was also evidenced by AIRS reports we reviewed. In any event, MDE could have provided EPA the information it needed to effectively evaluate the adequacy of the State's penalties. Moreover, EPA could have addressed this under reporting much sooner.

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CHAPTER 5

USING INSPECTION RESOURCES MORE EFFECTIVELY

MDE performed multiple inspections at some facilities without detecting violations of the Clean Air Act. MDE could have used its inspection resources more effectively if it targeted inspections to facilities where inspectors were more likely to detect violations. During fiscal year 1996, MDE reported to EPA that it did more than 700 inspections at the 179 major sources in Maryland. This equates to an average of four inspections per facility.

Multiple Inspections Can Be Beneficial

As part of Maryland's Comprehensive Inspection Plan for fiscal year 1996, the State committed to do multiple inspections at 20 facilities across the State. According to EPA's database, MDE reported that it did 52 Level 2 inspections at 19 of these facilities, an average of three inspections per facility. At one facility, the largest in the State, EPA's database indicates that MDE performed 72 Level 2 inspections.

The MDE inspection plan stipulated that, "multiple inspections are conducted at certain sources so that their environmental goals can be accomplished." Furthermore, it specified that, "If circumstances dictate, additional sources may be targeted for multiple inspections." MDE personnel told us that they also did more than one inspection at a facility when they received complaints from citizens. State personnel noted that they maintained an active complaint response program to answer air pollution complaints from citizens. These, and the obvious deterrent effect of an inspector's presence, are all valid reasons for Maryland to conduct more than one inspection at a facility in a fiscal year.

MDE Multiple Inspections With Questionable Benefits

Of the 60 facilities we reviewed during this audit, 36 were not planned for multiple inspections in MDE's Comprehensive Inspection Strategy, and received more than one inspection in fiscal year 1996. Details concerning the number of inspections performed are shown below.

Number of Inspections Performed	Facilities
1-2	29
3-9	21
10-15	6

Number of Inspections Performed	Facilities
1-2	29
15-27	4
Total	60

Three facilities that were not targeted to receive multiple inspections underwent a total of 64¹ inspections amounting to more than 66 hours of inspection time.² This is an average of 21 inspections per facility. Of the 64 inspections conducted at these three facilities, only two were conducted due to citizen complaints. For one facility, the complaint inspection was the last inspection conducted in the fiscal year. Therefore, the citizen’s complaint did not cause the previous inspections at this facility. It was also noteworthy that MDE issued only one Notice of Violation for the 64 inspections, and none of the inspection reports provided insight into why the State continued to inspect these same facilities time after time.

Thirty-nine of the 64 inspections at these three facilities were coded as “08” and credited as Level 2 inspections. We believe that conducting an average of 21 inspections per facility seems excessive since the inspections were not predicated on complaints or past violations. Furthermore, MDE could have more effectively employed these resources at facilities having a history of noncompliance, receiving numerous citizen complaints, or documented violations of state and federal law. MDE could also have devoted part of these resources to supplementing the inspection time used at other facilities, where it can be questioned whether the inspector allowed adequate time to conduct a thorough inspection and find all possible violations.

RECOMMENDATION

We recommend that the Region 3 Administrator work with MDE officials to better target and use inspection resources to optimize inspection results.

MDE RESPONSE

The findings and conclusions drawn relative to this matter are inaccurate and misleading. Chapter 5 does not address any of the stated purposes of the OIG audit. It is not clear to us how the OIG, with no practical knowledge of air pollution sources and issues, and certainly not specific issues in Maryland, could assign priorities to which sources should receive multiple inspections in Maryland, and if so how many should be conducted. Citizen complaints and the deterrent effect of an inspector’s presence are valid reasons to conduct multiple inspections at a facility. The three facilities in questions are all sources with high community visibility that have been of concern to the community.

The OIG states in the draft report that three facilities received a total of 64 inspections, which works out to an average of 21 inspections per facility. MDE believes these numbers are an inaccurate reporting of the facts by the OIG that needs to be changed in the report.

EPA RESPONSE

We agree with the findings expressed in this chapter and agree with the proposed recommendation. The OIG report goes into detail concerning how MDE could use its inspection resources more effectively if it targeted inspections to facilities where inspectors are more likely to detect violations. It is not effective to conduct numerous inspections of the same quality at the same source year-after-year with the same result. On a number of occasions, EPA Region 3 has suggested that MDE spend its resources more effectively by conducting fewer, more thorough inspections and documenting them better. MDE declined this opportunity.

Regarding the Recommendation that Region 3 work with MDE officials to better target and use inspection resources to optimize inspection results, we concur and will offer MDE the opportunity to engage in a Compliance Monitoring Strategy which will focus on quality and not quantity.

OIG EVALUATION

We do not agree with MDE that Chapter 5 should be deleted from this report. This chapter did address one of the purposes of this audit, which was a review of MDE's inspections. We also disagree that the OIG is not qualified to offer an opinion in this area. Our office has recently conducted several audits of EPA's air program. Moreover, our audit team included a member with nearly 30 years of experience in the air program.

We believe that it is not prudent to perform 64 inspections while issuing only one NOV and responding to two complaints. We recognize that perhaps multiple inspections could be appropriate at these three facilities, but not an average of 21 inspections at each facility when there was no documented justification.

MDE contends that the number of inspections we reported was inaccurate because 25 of the 64 inspections were observations. We disagree because whether the visit to the facility was called an observation or an inspection, the fact remains that MDE inspectors visited these three facilities a total of 64 times. Also, our draft report did recognize that 25 of MDE's visits were observations and not Level 2 inspections.

EPA's comment that it had previous concerns about the multiple inspections MDE performed is noted. However, effective oversight by EPA should have placed the requirement to more effectively focus resources in MDE's Section 105 grant prior to this time.

APPENDIX A - MDE'S RESPONSE TO DRAFT REPORT

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APPENDIX B - EPA'S RESPONSE TO DRAFT REPORT

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APPENDIX C - DISTRIBUTION

Headquarters

Office of Inspector General - Headquarters (2421)
Agency Audit Followup Coordinator (3304)
Agency Audit Followup Official (3101)
Assistant Administrator for Enforcement & Compliance Assurance (2201A)
Assistant Administrator for Air & Radiation (6101)
Associate Administrator for Congressional & Legislative Affairs (1301)
Associate Administrator for Communications, Education & Public Affairs (1701)
Associate Administrator for Regional Operations & State/Local Relations (1501)
EPA Library (3403)

EPA Region 3

Regional Administrator (3RA00)
Director, Air, Radiation & Toxics Division (3AT00)
Director, Office of External Affairs (3EA00)
Chief, Grants & Audit Management Branch (3PM70)
Regional Library (3PM52)

Other

Secretary, Department of the Environment
State of Maryland
Director, Air and Radiation Management Administration
State of Maryland
Office of Inspector General - Divisional Offices
General Accounting Office