

March 20, 1997

MEMORANDUM

SUBJECT: Plans for Managing Air Emissions, Compliance,
and Permit Data

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TO: Addressees

The purpose of this memorandum is to outline the Office of Air Quality Planning and Standards' (OAQPS) short and long-term plans with respect to data management for emissions and permit data. It also announces the Office of Enforcement and Compliance Assurance' (OECA) plans to conduct a user requirements analysis (URA) to determine how best to modernize the compliance portion of the AIRS Facility Subsystem (AFS) data management system.

In the future, OAQPS plans to rely more heavily on the National Emissions Trends (NET) data base system for meeting its emission data needs. For example, agencies have been requested to provide the 1996 periodic emissions inventory for ozone non-attainment areas by electronic format options including Emissions Inventory Improvement Program (EIIP) and AFS. Data provided in EIIP format will be uploaded into the NET. Data submitted into AFS will also be transferred into the NET. Longer term, we plan to enhance the NET so that it has expanded capabilities which will more fully meet the needs of other EPA users and the public. The OAQPS will be conducting its own user requirements analysis to determine how the system should be enhanced to meet these user needs.

For compliance data, OECA plans to examine the scope of the

national reporting requirements, as well as its data management needs. One of the issues under consideration is whether to continue to include emissions and compliance data in the same

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ATTACHMENT

BACKGROUND

The AIRS Facility Subsystem (AFS) is an integrated data management system that stores criteria and toxic emissions data, as well as compliance and Title V permit information. It was recently enhanced to provide the capability to assist users in making case-by-case MACT determinations. The AFS provides the emission and compliance data that OAQPS and OECA used to manage the national air pollution control program. The AFS is also used by a number of State and local agencies as their primary data management system. We estimate that about 20 agencies use AFS as their own emissions data system, and about 35 agencies use it as their own compliance system. Two States use it to manage their permit programs.

While AFS serves many useful purposes, there are some concerns. For example, there has been a dramatic advancement in computer technology since AFS was built in the late 1980's. Further, a growing number of State and local agencies have built their own data management systems to support their everyday program responsibilities. Because of the differences in data fields and data structure, some agencies typically report difficulty uploading data from their systems into AFS. Some agencies also question the scope of EPA's reporting requirements to AFS.

EMISSIONS DATA

The OAQPS has been exploring new ways to obtain emissions data from agencies. Our recent efforts with the Ozone Transport Commission (OTC) and with the Ozone Transport Assessment Group (OTAG) to assist them in compiling emission inventories for air quality modeling and emission trading programs gave us the opportunity to pilot new ways to obtain emissions data from agencies.

We have also been working with STAPPA-ALAPCO in the jointly sponsored Emission Inventory Improvement Program (EIIP). The EIIP project is primarily designed to improve emission inventory techniques. However, the EIIP's Data Management Committee is also developing a new data transfer protocol that is designed to enhance agencies' ability to transfer emissions data for air quality modeling projects from State-to-State as well as with EPA. The Data Management Committee believes the EIIP format will provide more flexibility with data transfer and uploading of data than currently exists. More information about the EIIP can be obtained from the EIIP Home Page (www.epa.gov/oar/oaqps/eiip/).

OUR PLANS FOR A NEW EMISSIONS SYSTEM

As explained in more detail below, our short-term plan is to build a prototype emissions data system that will accept emissions data in the EIIP data format. This system is being designed primarily to meet OAQPS' internal needs. Longer term, we want to build an enhanced emissions data system that has expanded capabilities and which will more fully meet the needs of EPA users and the public.

SHORT-TERM PLAN: EMISSIONS DATA

More specifically, our plan is to modify the existing National Emission Trends (NET) data base. The NET is the data base OAQPS uses for air quality modeling analyses, determining emission trends, and for performing many internal analyses, such as the recent analyses performed in conjunction with the proposed ozone and PM-fine NAAQS. The NET data base includes point, area, mobile source emissions and biogenic emissions data for criteria pollutants. We also plan to incorporate toxics data into the NET.

At this time, through a joint venture with the EIIP, we are modifying the NET by building a prototype ORACLE data base that will accept EIIP formatted data sets. The new prototype NET data base will be used in an EIIP pilot to test the delivery of emissions data from two States using the new EIIP data transfer format and EDI technology. The EPA will upload the emissions data submitted in EIIP format into the NET. There will be a minimum of edit checks to restrict data from being accepted into the system. Some quality assurance will be done after the data have been uploaded into the system, and questionable data will be flagged and returned to the State for review. Unlike the current AFS, the new system will not be designed to perform emission calculations. Public access will be made available by use of a Web site.

The OAQPS intends to rely more heavily on the revised NET data system in the future. As an example, we have requested that agencies submit the 1996 periodic emissions inventory data for ozone nonattainment areas for our upload into the NET data base. States may continue to submit point source data into AFS, and these data will be transferred to the NET data base by EPA. Data submitted by agencies to the NET will not be required to be uploaded into AFS.

LONG-TERM PLANS: EMISSIONS DATA

We recognize that the prototype NET data base currently under development will probably not meet all of our needs nor those of other users. For example, the prototype NET will initially have the capability to only update entire files of data in the data base rather than updating selected data fields from a file. While public access will be provided, only a limited number of report/file options will be available. Our longer-term plan is to enhance the NET to meet a wider range of user needs. We plan to initiate a users requirements analysis and would like to obtain any comments you may have so that your needs can be integrated into our long-term plan.

AFS COMPLIANCE

The AFS subsystem contains the compliance data that States and the Regional Offices provide and which OECA uses to manage the national compliance program. Concerns have been raised about the scope of the national reporting requirements and the need to modernize the data management system. OECA plans to initiate an analysis to determine how the data reporting and data management system need to be modified to meet today's needs. As such, OECA will soon be initiating a User Requirements Analysis (URA) with the user community to help decide what changes in reporting requirements and system design are needed.

The OECA is interested in determining not only the needs for a streamlined national data reporting system but also the continued needs of States who rely upon EPA's data system to manage their compliance program.

We would also like to explore whether there is a continued need to store emissions and compliance data in the same data system as is now the case in AFS. While there is little doubt that there is value in being able to access both emissions and compliance data for the same facility, the question is whether the emissions and compliance data need to be stored in the same data system.

It is possible to operate separate systems, using common identifiers so that data in one system can be linked to data in other systems. This kind of linkage is already available through EPA's Integrated Data for Enforcement Analysis (IDEA) System and the Envirofacts System. Indeed, the goal of the EPA Facility Identification Initiative (FII) is to develop an approach that will provide the capability to link all the data that EPA has for a particular facility through a single ID even though the data

may be stored in several Agency data systems.

We would like to know whether your organization would be better served by a single air facility system, or whether you would be better served by separate, though linked, data systems for compliance and emission data.

AFS PERMITS

The AFS currently has the capability to handle certain Title V permit data. Both OAQPS and OECA have an interest in obtaining the permit data that are currently reported and want to explore with the Regional Offices and State and local agencies how the permit data should be handled in any future data system.

FUTURE OF AFS

Agencies may continue to submit emissions data to AFS until the transition to the NET is complete. The OAQPS will continue to maintain AFS until new systems are operational for emissions, compliance and Title V permit data, which may take from 2-4 years to complete. As such, agencies should continue to report the required compliance and Title V permit program data elements (PPDE's) to AFS. The AFS will also be supported so that States can continue to upload toxics data into AFS and use the case-by-case MACT capability.

Agencies that currently use AFS as their own data system for emissions can continue to do so for the immediate future. However, agencies should begin to consider other emissions data management system alternatives for the longer term. Because the NET may not provide some of the capabilities (e.g., no internal calculations are planned) that AFS had, the NET may have more limited utility for agencies' use. We are aware that there are some commercially available data systems available in the marketplace that provide capabilities similar to the AFS subsystem.

REACTION AND FEEDBACK

We are interested in obtaining any comments you may have on our plans. To assist us, we ask that you consider the following questions in your response, as well as any other comments you may have.

1. Given the discussion above, what are your suggestions for handling the following:

- a) emissions data?
- b) compliance information?

c) Title V permit data?

2. Do you currently rely upon emission data in AFS to meet your program needs? If so, what types of support (access to data inputs/outputs) would you be looking for from the NET emissions data system?

3. What is your opinion concerning the maintenance of emissions and compliance data in a single system versus maintaining the data in separate, but linked systems? In responding, please consider how your compliance staff use emissions data and how your emissions staff use compliance data.

4. A re-engineering effort will likely impact States that are direct users of AFS at some time in the future. We would like your assessment of the potential magnitude of the impact and any suggestions for mitigating these impacts.

We would appreciate any other suggestions or comments you would like to offer.