

Policy DAR-2: Oversight of Private Air Monitoring

New York State Department of Environmental Conservation

DEC Program Policy

Issuing Authority: David Shaw, Director,
Division of Air Resources

Signature:



Title: Oversight of Private Air Monitoring
Networks

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Unit: Bureau of Air Quality Surveillance

I. Summary: This policy provides the procedures to be followed for the oversight of privately operated air quality monitoring networks, and conditions under which data collected by such networks can be deemed acceptable for air permitting and SEQRA procedures.

II. Policy: This policy is written to assist operators of private air monitoring networks to ensure that data from these networks will be accepted by DEC for use in permitting, SEQRA or compliance determinations.

III. Purpose and Background: This policy is written to delineate the oversight procedures required by DEC for long-term, private, air monitoring networks. The data from networks which do not follow the procedures set forth in this policy will not be accepted by DEC for use in permitting, SEQRA or compliance determinations. In instances where short term monitoring data is collected and used in DEC proceedings, a case-by-case review of the procedures followed, and the data collected will be made to determine the reliability and usefulness of the data. It is recommended that such data collection should, at a minimum, follow the general guidance in this document to ensure proper data collection and applicability to the intended purpose of its use. This policy is a revision of and will supercede DAR-2 Private Air Monitoring Networks, issued December 16, 1997.

IV. Responsibility: Operators of private air monitoring networks are responsible for ensuring that these networks function under the applicable guidelines.

V. Procedure: This policy was previously issued as Air Guide-19, dated June 14, 1989 and DAR-2 Private Air Monitoring Networks, dated December 16, 1997. This is the first revision to DAR-2 since 1997.

Oversight of Private Air Monitoring Networks

Introduction

This document describes the procedures to be followed for the oversight of privately operated air quality monitoring networks. The data from networks which do not follow the procedures set forth below will not be accepted by DEC for use in permitting, SEQRA or compliance determinations.

The process of oversight is separated into the following elements:

- Deciding whether air quality and/or meteorological monitoring is necessary
- Network design and installation
- Network operation
- Data transmission and receipt
- Quality assurance/quality control
- Data review
- Data reporting

For networks that are required by DEC, the Division of Air Resources (Division) will exercise an oversight role on each of the elements.

Oversight Tasks

The following tasks must be completed to provide oversight:

Deciding Whether Air Quality and/or Meteorological Monitoring is Necessary

DEC may require that air quality monitoring be conducted in one or more of the following instances:

1. Where an ambient air quality impact analysis has defined potential impacts to exceed the levels established in the National Ambient Air Quality Standard(s) (NAAQS);
2. Where ambient air quality background levels are not adequately defined by current available monitoring, an example of which is the establishment of baseline ambient air quality levels for Prevention of Significant Deterioration (PSD) purposes; and/or
3. Where observations of the environment indicate that health and welfare impacts are occurring.

Network Design and Installation

Initially, the applicant must be advised on the type, amount, location, and duration of monitoring. Then the applicant will submit a detailed Quality Assurance Project Plan (QAPP) containing all the technical specifics of the monitoring program. This document will be reviewed for completeness and correctness and either accepted or returned for modification. Division staff will do a site visit to confirm the appropriateness of the station locations prior to finalization of sites and installation of equipment.

Once accepted, the applicant will use the QAPP to establish its network. In no instance does the Department propose to negotiate for sites or install equipment. When the network is established, division staff will make a final site inspection.

Meteorological monitoring may be required in conjunction with air quality monitoring, if current

available meteorological data does *not* adequately characterize the dispersion characteristics of the site such as to allow meteorological interpretation of air quality measurements being taken.

Guidance on preparation of a QAPP may be found by visiting EPA's Quality System website at <http://www.epa.gov/quality/>

Network Operation

The networks will be operated and maintained by either the source owner or the source owner's consultant. Operation of all pollutant and meteorological instruments shall be in accordance with manufacturers' operating instructions and the approved QAPP, and shall meet EPA reference or equivalent method requirements as applicable.

Data Transmission and Receipt

All data collected by the private air monitoring network shall be transmitted to DEC no less than once a month in the format described in the approved QAPP. The data submittal shall include the result of weekly zero/span checks, precision checks and audits and a discussion of any data abnormalities and missing data. In some limited circumstances, DEC may require continuous access to data collected by the air monitoring network.

Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) shall be maintained in accordance with the EPA and equipment manufacturers' requirements and the Department's quality assurance requirements. QA/QC procedures shall be included as part of the QAPP developed by the network operator and submitted to the Department. QA/QC procedures shall be in accordance with the latest EPA and Department's guidelines for air monitoring systems. A set of these guidelines is included as [Appendix A](#) to this policy. Division staff will conduct quarterly performance audits and annual system audits. At DEC's discretion and resource availability, the Division may require the network operator to hire an independent third party consultant to perform the quarterly and annual audits. These audits will be reported to the respective network operators. The network operating staff will perform zeros, spans, precision checks, and multipoint audits as detailed in the approved QAPP.

When manual monitoring instruments are used, DEC may use one or more of the following QA/QC crosschecks:

- Independently analyze split samples on a periodic basis;
- Send "unknown" spiked samples to be analyzed in the network operator's laboratory;
- Other actions appropriate to the individual situation, such as flow audits.

Data Review

The goal of data review is to ensure that only data that is accurate and precise, as well as appropriate, is accepted and entered into the DEC data record. To accomplish this, DEC staff will review all transmitted data. Data review criteria will be the same as the criteria used for DEC operated monitors. It is incumbent on the network operator to determine when data is missing and supply that data to DEC as soon as practicable, but no later than seven (7) days after such a discovery. DEC reserves the right of final determination of the acceptability of all data, although every effort will be made to resolve

conflicts over data acceptability.

Data Reporting

The reporting of edited and accurate data is the final step in the oversight of the air monitoring network. For required networks, the applicant or the applicant's consultant will prepare quarterly reports containing air quality data and quality assurance information following the Department's guidance. At a minimum, all reports shall include ambient and meteorological data, a quality assurance section, a data summary section and a standards compliance section.

Appendix A

Guidelines for Air Monitoring Systems in New York State

A number of non-governmental and governmental agencies have established air monitoring systems. Most of the technical requirements are codified in the following federal regulations and references:

1. 40 CFR 50, *EPA Regulations on National Primary and Secondary Ambient Air Quality Standards*
2. 40 CFR 51, *EPA Regulations on Preparation of Implementation Plans*
3. 40 CFR 53, *EPA Regulation on Ambient Air Monitoring and Equivalent Methods*
4. 40 CFR 58, *EPA Ambient Air Quality Surveillance Regulations*
5. *List of Designated Reference and Equivalent Methods* as periodically updated by USEPA. EMSL, RTP, N.C. 27711
6. *Ambient Monitoring guidelines for Prevention of Significant Deterioration*, EPA-450/4-80-012
7. *Quality Assurance Handbook for Air Pollution Measurement Systems Vols. I, II, III, IV (as revised)*
Volume I, *Principles*, EPA-600/9-76-005, Revised December, 1984.
Volume II, *Ambient Air Specific Methods, Ambient Air Quality Monitoring Program* EPA-454/B-08-003, December, 2008
Volume III, *Stationary Source Specific Methods*, EPA-600/4-77-027b, Revised 1988.
Volume IV: *Meteorological Measurements Quality Assurance Handbook.* (EPA/600/R-94-038d), Revised, March, 1995.