AS 3580.19:2020

Australian STANDARD®

Methods for sampling and analysis of ambient air

Method 19: Ambient air quality data validation and reporting

STANDARDS Australia

AS 3580.19:2020

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The following are represented on Committee EV-007:

ACT Health
Australian Aluminium Council
Australian Industry Group
Australian Institute of Refrigeration Air Conditioning and Heating
Clean Air Society of Australia and New Zealand
Department of Environment and Science, Qld
Department of Water and Environmental Regulation, WA
Environment Protection Authority, Vic.
National Association of Testing Authorities Australia
Office of Environment and Heritage, NSW
RMIT University

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EV-007, Methods for Examination of Air.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide regulatory and testing bodies with procedures for validating and reporting ambient air quality data and for the subsequent use of invalidated data.

Contents

Introduction

Social and community expectations are that air pollutant levels are managed to ensure exposure and environmental risks are minimized. The community expects that published ambient air quality data, either from the regulatory authority or the industry emitting the pollutants, will be accurate, unbiased and obtained with instruments suited to the application.

Air quality impact studies for works/development approval for new facilities rely on mathematical modelling and background air quality data to assess conformance with ambient air quality criteria and, in some instances, to conduct human health risk assessments. Planning authorities rely heavily on the assessment of existing environmental conditions in environment effects/impact statements for major industrial or public works when assessing whether to approve proposed projects.

Documented and uniformly applied data validation and reporting procedures are therefore essential components of any ambient air quality monitoring program.

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Section 1 Scope and general

1.1 Scope and application

1.1.1 Scope

This Standard specifies data validation and reporting procedures applicable to the measurement of pollutants in ambient air and road tunnels and to the measurement of meteorological parameters, as described in the AS 3580 and AS/NZS 3580 series of Standards.

1.1.2 Application

This Standard is intended to be used as a companion to the AS 3580 and AS/NZS 3580 series of Standards dealing with ambient air quality measurement by a range of methods. For operational guidance, refer to the relevant Standard in the series for the particular pollutant and monitoring method.

Where there are differences between the requirements contained in a Standard for a particular pollutant and those contained in this Standard, the requirements of this Standard shall take precedence.

1.2 Normative references

The following are referred to in the text in such a way that some or all of their content constitutes requirements of this document:

NOTE Documents for informative purposes are listed in the Bibliography.

AS 2706, *Numerical values—Rounding and interpretation of limiting values*

AS 3580.4.1, *Methods for sampling and analysis of ambient air, Method 4.1: Determination of sulfur dioxide—Direct reading instrumental method*

AS 3580.5.1, *Methods for sampling and analysis of ambient air, Method 5.1: Determination of oxides of nitrogen—Direct-reading instrumental method*

AS 3580.6.1, *Methods for sampling and analysis of ambient air, Method.6.1: Determination of ozone—Direct-reading instrumental method*

AS 3580.7.1, *Methods for sampling and analysis of ambient air, Method 7.1: Determination of carbon monoxide—Direct-reading instrumental method*

AS 3580.9.8, *Methods for sampling and analysis of ambient air, Method 9.8: Determination of suspended particulate matter—PM_{10} continuous direct mass method using a tapered element oscillating microbalance analyser*

AS 3580.9.9, *Methods for sampling and analysis of ambient air, Method 9.9: Determination of suspended particulate matter—PM_{10} low volume sampler—Gravimetric method*

AS 3580.9.10, *Methods for sampling and analysis of ambient air, Method 9.10: Determination of suspended particulate matter—$PM_{2.5}$ low volume sampler—Gravimetric method*

AS/NZS 3580.1.1, *Methods for sampling and analysis of ambient air, Method 1.1: Guide to siting air monitoring equipment*