

Australian/New Zealand Standard™

**Methods for sampling and analysis of
ambient air**

**Part 14: Meteorological monitoring for
ambient air quality monitoring
applications**



AS/NZS 3580.14:2014

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The following are represented on Committee EV-007:

Australian Bureau of Meteorology
Australian Chamber of Commerce and Industry
Australian Industry Group
Clean Air Society of Australia and New Zealand
CSIRO Marine and Atmospheric Research
Department of Environment, Climate Change and Water, NSW
Department of Environment and Conservation, WA
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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, to supersede AS 3580.14—2011, *Methods for sampling and analysis of ambient air, Part 14: Meteorological monitoring for ambient air quality monitoring applications*.

The Committee acknowledges reference material provided by both the World Meteorological Organization and the United States Environmental Protection Agency (US EPA).

The objective of this Standard is to provide users with methods for the collection of meteorological data for ambient air quality monitoring and modelling applications. The objective of the revision is to allow for its use in New Zealand.

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Methods for sampling and analysis of ambient air

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 applications

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out methods for the collection of meteorological data for use in ambient air quality monitoring and modelling applications. Requirements and guidance are provided for the *in situ* monitoring of primary meteorological variables being: wind speed, wind direction, temperature, humidity, atmospheric pressure, precipitation and solar radiation.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS

1768 Lightning protection

ISO

9060 Solar energy—Specification and classification of instruments for measuring hemispherical solar and direct solar radiation

ISO/IEC

Guide 98-3 Uncertainty of measurement—Part 3: Guide to the expression of uncertainty in measurement

ASTM

E104 Standard Practice for Maintaining Constant Relative Humidity by Means of Aqueous Solutions

E563

Standard Practice for Preparation and Use of an Ice-Point Bath as a Reference Temperature

Environment Protection and Heritage Council

National Environment Protection (Ambient Air Quality) Measure, Technical Paper No.5, Data Collection and Handling

US Environmental Protection Agency (EPA)

Meteorological Monitoring Guidance for Regulatory Modelling Applications. EPA-454/B-08-002. March 2008

Quality Assurance Handbook for Air Pollution Measurement Systems Volume IV: Meteorological Measurements. Version 2.0 (Final). EPA-454/B-08-002. March 2008

World Meteorological Organization

Guide to Meteorological Instruments and Methods of Observation. WMO-No.8. Seventh edition 2008

Instruments and Observing Methods Report No. 81, 'Initial Guidance to Obtain Representative Meteorological Observations at Urban Sites'