

ISO 20044:2022-12 (E)

Measurement of radioactivity in the environment - Air: aerosol particles - Test method using sampling by filter media

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Symbols	5
5	Principle	6
6	Sampling	9
6.1	General	9
6.2	Choice of criteria for sampling location	9
6.3	Criteria for sampling duration	9
6.4	Criteria for sampling equipment	9
6.5	Criteria for filter	12
6.6	Criteria for air volume and flow-rate measurement	12
7	From filter collecting to deferred deposited activity measurement report	12
8	Determination of the activity concentration in the air from deferred measurement results	13
8.1	General	13
8.2	Model of evaluation	13
8.3	Relative standard uncertainty	14
8.4	Decision threshold	14
8.5	Detection limit	14
8.6	Expression of activity concentration results	14
9	Real time measurement with continuous air monitor[11]	14
9.1	Context	14
9.2	Description of CAM	15
9.3	Operating use of CAM	17
10	Quality assurance and quality control	17
10.1	General	17
10.2	Sample identification, handling, and storage	17
10.3	Sampling equipment	17
10.4	Documentation and record keeping	18
Annex A (informative)	Radionuclides in the atmosphere[16]	19
Annex B (informative)	General information on aerosol behaviour	21
Annex C (informative)	Example of sampling head and characterizations	25
Annex D (informative)	Examples of some sampling filters characteristics	27

Annex E (informative) Example of sampling information sheet	30
Annex F (informative) Characterization of the transport line	31
Annex G (informative) Example of calculation of the activity concentration in the air from deferred measurement	33
Annex H (informative) Illustration of CAM empirical minimum detectable activity concentration setup and its associated response time	37
Bibliography	43