ISO 23137-1:2024-04 (E)

Requirements for aerosol filters used in nuclear facilities against specified severe conditions - Part 1: General requirements

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 General requirements 2
4.1 General design requirements of the filters 2
4.1.1 Layout requirements 2
4.1.2 Materials 3
4.1.3 Nominal air volume flow rate 3
4.1.4 Pressure difference 3
4.1.5 Filtration performance 3
4.1.6 Filter lifetime 4
4.2 General qualification principles 4

5 General performances against loads 6
5.1 Introduction 6
5.2 Visual inspection 6
5.3 Resistance to air flow and initial efficiency performance 6
5.4 Exposure to loads 6
5.5 Specific performances related to environment likely to be present in nuclear facilities 7

6 Qualification of the test rig used for the filter loading performance 7
6.1 General 7
6.2 Qualification of the test rigs 7
6.3 Capabilities of the test rigs with regards to certification filtration performances 7

7 General conditions for the shipping and storage of filters 8
7.1 Packaging and shipping 8
7.2 Storage of HEPA filters 8

8 Reporting, evaluation and report 8

Annex A (informative) General overview of the loads characterization and their combinations on the filters used in nuclear facilities 9

Annex B (informative) Examples of general sizes and layout used for aerosol filtration in nuclear facilities 10

Annex C (normative) Conformity compliance report template 11

Annex D (informative) Packaging, shipping and storage 12

Annex E (informative) Service life 14

Bibliography 15