ISO/TS 21343:2025-01 (E)

Oil and gas industries including lower carbon energy - Fuel ammonia - Requirements and guidance for boilers for power generation

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 General test requirements ... **3**
4.1 Basic concept of tests ... 3
4.2 Extent of test ... 4

5 Functional test ... **5**
5.1 General ... 5
5.2 Measurements for functional test ... 5
5.3 Functional test equipment ... 6
5.3.1 General ... 6
5.3.2 Ammonia combustion burner ... 6
5.3.3 Combustion chamber ... 6
5.3.4 Combustion emissions measurement equipment ... 6
5.4 Method for functional test ... 6
5.4.1 Fuel ... 6
5.4.2 Test condition ... 6
5.4.3 Measurement method ... 7
5.5 Functional test report ... 8
5.5.1 General ... 8
5.5.2 General information ... 8
5.5.3 Information to be presented for each measurement ... 9

6 Acceptance test ... **9**
6.1 General ... 9
6.2 Measurements for acceptance test ... 9
6.3 Combustion emission measurement concept ... 10
6.4 Method for acceptance test ... 10
6.4.1 Fuel ... 10
6.4.2 Test condition ... 10
6.4.3 Measurement method ... 10
6.5 Acceptance test report ... 11
6.5.1 General ... 11
6.5.2 General information ... 11
6.5.3 Information to be presented for each measurement ... 11

Annex A (informative) **General concept of purchaser and/or user's performance requirements for ammonia-fired boilers** ... **12**

Annex B (informative) **Sample of functional test - measurement results format** ... **13**

Annex C (informative) **Sample fuel properties format** ... **15**

Annex D (informative) **Sample acceptance test – measurement results format** ... **18**

Bibliography ... **20**