

ISO 7195:2020 (E)

Nuclear energy — Packagings for the transport of uranium hexafluoride (UF₆)

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Management system
5	General requirements for cylinders and valve protection
5.1	Design of cylinders and valve protection
5.2	Fabrication of new cylinders
5.2.1	General
5.2.2	Radiography and other non-destructive examinations (NDEs)
5.2.3	Testing
5.2.4	Cylinder marking
5.2.5	Reports, certification, and records
5.2.6	Outer surface
5.2.7	Cleanliness
5.2.8	Standard cylinders
5.3	In-service cylinders and valve protection
5.3.1	Cleanliness
5.3.2	Testing
5.3.3	Routine inspections
5.3.4	Periodic inspections and tests
5.3.4.1	One-year periodic inspection and tests on 30C cylinders
5.3.4.2	Five-year periodic inspection and tests for all cylinders
5.3.4.2.1	General
5.3.4.2.2	Five-year periodic inspection and tests
5.3.4.2.3	Alternative five-year periodic inspection and tests
5.3.4.2.4	Removal of cylinders from service
5.3.5	Cylinder maintenance/repair/alteration
5.3.6	Maintenance of valves specified in 8.2 and 8.3
6	Specific requirements for cylinders and valve protection
6.1	1S Cylinder
6.1.1	Design conditions
6.1.2	Materials
6.1.3	Fabrication
6.1.4	Radiography
6.1.5	Valve
6.1.6	Plug
6.1.7	Valve installation
6.1.8	Testing
6.1.9	Cylinder marking
6.1.10	Cleaning
6.1.11	Certification
6.1.12	External surface treatment
6.2	2S Cylinder
6.2.1	Design conditions
6.2.2	Materials
6.2.3	Fabrication

6.2.4	Radiography
6.2.5	Valve
6.2.6	Plug
6.2.7	Valve installation
6.2.8	Testing
6.2.9	Cylinder marking
6.2.10	Cleaning
6.2.11	Certification
6.2.12	External surface treatment
6.3	5B Cylinder
6.3.1	Design conditions
6.3.2	Materials
6.3.3	Fabrication
6.3.4	Radiography
6.3.5	Valve
6.3.6	Plug
6.3.7	Valve installation
6.3.8	Testing
6.3.9	Cylinder marking
6.3.10	Cleaning
6.3.11	Certification
6.3.12	External surface treatment
6.4	8A Cylinder
6.4.1	Design conditions
6.4.2	Materials
6.4.3	Fabrication
6.4.4	Radiography
6.4.5	Valve
6.4.6	Plug
6.4.7	Valve installation
6.4.8	Testing
6.4.9	Cylinder marking
6.4.10	Cleaning
6.4.11	Certification
6.4.12	External surface treatment
6.5	12B Cylinder
6.5.1	Design conditions
6.5.2	Materials
6.5.3	Fabrication
6.5.4	Radiography
6.5.5	Valve
6.5.6	Plug
6.5.7	Valve installation
6.5.8	Testing
6.5.9	Cylinder marking
6.5.10	Cleaning
6.5.11	Certification
6.5.12	External surface treatment
6.6	30B Cylinder
6.6.1	Design conditions
6.6.2	Materials
6.6.3	Fabrication
6.6.4	Radiography
6.6.5	Valve
6.6.6	Plug
6.6.7	Valve and plug installation
6.6.8	Testing
6.6.9	Cylinder marking
6.6.10	Cleaning
6.6.11	Certification
6.6.12	External surface treatment
6.7	30C Cylinder
6.7.1	Design conditions
6.7.2	Materials

- 6.7.3 Fabrication
- 6.7.4 Radiography and non-destructive examination (NDE)
- 6.7.5 Valve
- 6.7.6 Plug
- 6.7.7 Valve and plug installation
- 6.7.8 Testing
- 6.7.9 Cylinder marking
- 6.7.10 Cleaning
- 6.7.11 Certification
- 6.7.12 External surface treatment
- 6.8 48Y or 48X cylinder
 - 6.8.1 Design conditions
 - 6.8.2 Materials
 - 6.8.3 Fabrication
 - 6.8.4 Radiography
 - 6.8.5 Valve
 - 6.8.6 Plug
 - 6.8.7 Valve and plug installation
 - 6.8.8 Testing
 - 6.8.9 Cylinder marking
 - 6.8.10 Cleaning
 - 6.8.11 Certification
 - 6.8.12 External surface treatment
- 7 General requirements for cylinder valves and plugs
 - 7.1 Manufacturing process for valves and plugs
 - 7.1.1 Process
 - 7.1.2 Materials
 - 7.1.3 Material test report
 - 7.1.4 Manufacturing
 - 7.1.5 Material stress-relief specifications
 - 7.1.6 Cleaning
 - 7.1.7 Tinning of valves and plugs
 - 7.1.8 Assembly of valves
 - 7.1.9 Testing of valves
 - 7.1.10 Packaging of valves and plugs
 - 7.1.11 Certification
 - 7.2 Installation of valves and plugs specified in 8.3 and 8.4
- 8 Specific requirements for cylinder valves and plugs
 - 8.1 Valves for 1S and 2S cylinders
 - 8.1.1 General
 - 8.1.2 Design conditions
 - 8.1.3 Materials
 - 8.1.4 Marking
 - 8.2 Cylinder valve 50 (3/4 in)
 - 8.2.1 Design conditions
 - 8.2.2 Materials
 - 8.2.3 Material test report
 - 8.2.4 Manufacturing
 - 8.2.5 Cleaning
 - 8.2.6 Tinning
 - 8.2.7 Assembly
 - 8.2.8 Testing
 - 8.3 Cylinder valve 51 (1 in)
 - 8.3.1 Design conditions
 - 8.3.2 Materials
 - 8.3.3 Material test report
 - 8.3.4 Manufacturing
 - 8.3.5 Cleaning
 - 8.3.6 Tinning
 - 8.3.7 Assembly
 - 8.3.8 Testing
 - 8.4 Plug

- 8.4.1 Design conditions
 - 8.4.2 Materials
 - 8.4.3 Machining
 - 8.4.4 Cleaning
 - 8.4.5 Tinning
 - 8.4.6 Certification
- 9 Shipping
- 9.1 Tamper indication
 - 9.2 New cylinders
 - 9.3 Clean and washed out cylinders
 - 9.4 Other cylinders
 - 9.5 Outer protection

Page count: 91