ISO 22188:2023-08 (E)

Monitoring for inadvertent movement and illicit trafficking of radioactive material

Contents

Page

Foreword iv

Introduction vi

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Monitoring 4
4.1 Overview 4
4.2 Training requirements for border agents, inspectors and first responders 7
4.3 Monitoring instruments 7
4.3.1 General 7
4.3.2 Personal radiation devices 8
4.3.3 Hand-held instruments 9
4.3.4 Hand-held radionuclide identification devices (RIDs) 10
4.3.5 Installed radiation portal monitors 11
4.3.6 Mobile systems 13
4.3.7 Backpack-type radiation detectors 14
4.3.8 Active interrogation and imaging systems 14

5 Radiation monitoring at checkpoints 15
5.1 General 15
5.2 Important considerations 15
5.3 Verification 16
5.4 Localization 16
5.5 Identification 16
5.6 Search techniques, operational response and follow-up 16

6 Cyber assurance for monitoring instruments 16
6.1 General 16
6.2 Risk-based good practice 17
6.3 Operational aspects 17

Annex A (informative) Alarms and threshold levels 18

Annex B (informative) Possible trafficked devices and radionuclides 22

Annex C (informative) Examples of naturally occurring radioactive materials 23

Bibliography 24