ISO 5667-24:2016-04 (E)

Water quality - Sampling - Part 24: Guidance on the auditing of water quality sampling

Contents

Page

Foreword v

Introduction vii

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Multiple audits 4

5 Auditing objectives 5

6 Internal audit objectives 6

7 External audit objectives 6

8 Identificationofthecriticalfactorsinthewaterqualitysamplingprocess 6
8.1 Identification of critical operational steps 6
8.2 Audit prioritization exercise 7
8.3 Unscheduled observations 7
8.4 Follow-up actions 8

9 Risk-based versus judgement-based approaches to auditing 8
9.1 General 8
9.2 Risk-based auditing 8
9.3 Judgement-based auditing 9
9.4 Auditing assumptions 9

10 Document auditing 9
10.1 Sampling programme and sampling practitioner/operative instruction documents 9
10.2 Sampling manual 9
10.2.1 General 9
10.2.2 10
10.2.3 Format 11
10.2.4 The laboratory interface 12
10.3 Training policy 13
10.4 Sampling record sheets 13
10.5 Labels 13
10.6 Chain of custody records 14
10.7 Laboratory receipts 15
10.8 Assessment of documents before the field assessment 15
10.9 Assessment of completed documents 15
10.10 Policy on statements of uncertainty 16

11 Real-time audit 16
11.1 Audit forms 16
11.2 Field observation 16
11.3 Real-time risk-based auditing (see also 9.2) 17
11.4 Real-time judgement-based auditing (see also 9.3) 17

11.5 Evidence of internal audits 17

12 Design of an audit plan 17
12.1 Consultation with the responsible person 17
12.2 Pre-audit questionnaire 17
12.3 Plan design 18
12.4 Audit practice 18
12.4.1 Staff competence assessments 18
12.4.2 Supervision 18
12.4.3 Equipment 19
12.4.4 Handling of samples 19
12.4.5 Individual sample records 19
12.4.6 Tracking of samples 20

13 Conductoffieldassessments 20
13.1 General 20
13.2 Sample location verification 21
13.3 Identification 22
13.4 The use of photographs in field assessment 22

14 Audit methodology 22
14.1 General 22
14.2 Conduct of the audit 22
14.3 Reviewing the audit plan 23
14.4 Real-time assessment 24
14.4.1 General 24
14.4.2 Pre-audit meeting 24
14.4.3 Opening meeting 24
14.4.4 Traceability assessments before real-time audit 24
14.4.5 Observation procedures 24
14.4.6 Assessing conformity with temperature control during the audit 25
14.4.7 Auditing of photographic evidence 25
14.4.8 Interpretation of audit data 26
14.4.9 Recording nonconformity 26

15 Assignment of the audit report and the closure meeting 26

16 Theauditreportandstatementoffindings 27
16.1 The report 27
16.2 Statement of findings 28
16.3 Audit conclusions 28
16.4 Statement of recommended actions 28

17 Outlineflowdiagramofauditprocess 30

Annex A (informative) Audit forms 32

Annex B (informative) Suggested procedures for monitoring temperature control 95

Annex C (informative) Measurement of uncertainty associated with sampling practices 96

Bibliography 97