

Contents

ASME A17 Elevator and Escalator Committee v

CSA B44 Technical Committee on the Elevator Safety Code vii

ASME A17.7/CSA B44.7 Committee on New Technology x

Foreword xii

ASME Preface xiii

CSA Preface xv

Form and arrangement xvi

1 GENERAL 1

- 1.1 SCOPE 1
- 1.2 PURPOSE 2
- 1.3 DEFINITIONS 2

2 SAFETY REQUIREMENTS 5

- 2.1 PROCESSES FOR ESTABLISHING SAFETY 5
- 2.2 OPTIONS FOR ESTABLISHING SAFETY 6
- 2.3 SAFETY ASSESSMENT SUBJECT 6
- 2.4 ASSURING SAFETY BY IMPLEMENTING GESRs 7
- 2.5 SORTING OF APPLICABLE GESRs FOR APPROACH 1 8
- 2.6 IMPLEMENTATION OF GESRs 9
- 2.7 RISK ASSESSMENT PROCESS 9
- 2.8 PROTECTIVE MEASURES AND SAFETY PRINCIPLES 11
- 2.9 APPLICATION OF SPs 12
- 2.10 CODE COMPLIANCE DOCUMENTATION 13
- 2.11 CODE DATA PLATE 13
- 2.12 ADDITIONAL REQUIREMENTS 13

3 GLOBAL ESSENTIAL SAFETY REQUIREMENTS (GESRs) FOR ELEVATORS 15

- 3.1 COMMON GESRs RELATED TO PERSONS AT DIFFERENT LOCATIONS 15
- 3.2 GESRs RELATED TO PERSONS ADJACENT TO THE ELEVATOR — FALLING INTO HOISTWAY 17
- 3.3 GESRs RELATED TO PERSONS AT THE ELEVATOR ENTRANCE 18
- 3.4 GESRs RELATED TO PERSONS IN THE LCU (CAR) 19
- 3.5 GESRs RELATED TO PERSONS IN WORKING AREAS 21

4 SAFETY PARAMETERS 23

5 REFERENCE CODES AND STANDARDS 25

- 5.1 REFERENCE DOCUMENTS 25
- 5.2 PROCUREMENT INFORMATION 29

MANDATORY APPENDIX I — CERTIFICATION OF CONFORMANCE OF ELEVATOR SYSTEMS, SUB-SYSTEMS, COMPONENTS, OR FUNCTIONS 31

NONMANDATORY APPENDICES

- A** — BACKGROUND TO GESRs 35
 - B** — SAFETY PARAMETERS 53
 - C** — RISK ASSESSMENT METHODOLOGIES 78
 - D** — QUICK REFERENCES 83
 - E** — EXAMPLE OF USE OF THIS CODE 87
 - F** — ASME A17.7/CSA B44.7 Process 114
-

Tables

- A-1** — Examples of risk scenarios related to GESRs 36
 - A-3** — Cross-Referencing of GESRs in Part 3 and Elevator Sub-Systems 42
 - A-4** — Cross-Referencing of GESRs in Part 3 and Elevator Sub-Systems 48
 - B-1** — SPs for Each GESR 54
 - B-2** — Summary of Anthropometric Data 76
 - C-1** — Risk Assessment Template 79
 - C-2.1** — Levels of Severity 80
 - C-2.2** — Levels of Probabilities 80
 - C-3.1** — Risk Estimation and Evaluation 81
 - C-3.2** — Risk Evaluation 81
 - C-4** — Guide for Team Moderator — Role, Skills, Duties, and Responsibilities 82
 - D-1** — Examples of Hazards 83
 - D-2** — Examples of Hazardous Situations 84
 - D-3** — Examples of Causes (Component of Harmful Event) 85
 - D-4** — Examples of Possible Effects 86
 - E-2.3** — List of GESRs to be Verified for Conformance 89
 - E-2.4** — Risk Assessment per Nonmandatory Appendix C 96
-

Figures

- E-1** — Determination of the Subject of the Assessment 109
- E-2a** — Elaboration of the Design Concept 110
- E-2b** — View of Ground Guard and Raised LCU 111
- E-3** — Elaboration of Design Concept LCU – Landing Bridge 112
- E-4** — Elaboration of the Design Concept 113
- F-1** — ASME A17.7/CSA B44.7 Process 114