

# CONTENTS

*(Paragraph numbers are given in parentheses)*

SECTION I.	INTRODUCTION .....	1
Background (101–103) .....		1
Objective (104–105) .....		2
Scope (106–109) .....		2
Structure (110) .....		3
SECTION II.	DEFINITIONS (201–248) .....	5
SECTION III.	GENERAL PROVISIONS .....	17
Radiation protection (301–303) .....		17
Emergency response (304–305) .....		17
Quality assurance (306) .....		18
Compliance assurance (307–308) .....		18
Non-compliance (309) .....		19
Special arrangement (310) .....		19
Training (311–314) .....		20
SECTION IV.	ACTIVITY LIMITS AND MATERIAL RESTRICTIONS .....	23
Basic radionuclide values (401) .....		23
Determination of basic radionuclide values (402–406) .....		23
Contents limits for packages (407–419) .....		45
SECTION V.	REQUIREMENTS AND CONTROLS FOR TRANSPORT .....	49
Requirements before the first shipment (501) .....		49
Requirements before each shipment (502) .....		49
Transport of other goods (503–506) .....		50
Other dangerous properties of contents (507) .....		51
Requirements and controls for contamination and for leaking packages (508–514) .....		51

Requirements and controls for transport of excepted packages (515–520) .....	52
Requirements and controls for transport of LSA material and SCO in industrial packages or unpackaged (521–525) .....	54
Determination of transport index (526–527) .....	55
Determination of criticality safety index (528–529) .....	57
Limits on transport index, criticality safety index and radiation levels for packages and overpacks (530–532).....	57
Categories (533) .....	58
Marking, labelling and placarding (534–548) .....	59
Consignor’s responsibilities (549–562) .....	70
Transport and storage in transit (563–581).....	73
Customs operations (582).....	80
Undeliverable consignments (583) .....	80
<b>SECTION VI. REQUIREMENTS FOR RADIOACTIVE MATERIALS AND FOR PACKAGINGS AND PACKAGES .....</b>	<b>81</b>
Requirements for radioactive materials (601–605) .....	81
General requirements for all packagings and packages (606–616) .....	82
Additional requirements for packages transported by air (617–619) .....	83
Requirements for excepted packages (620) .....	84
Requirements for industrial packages (621–628).....	84
Requirements for packages containing uranium hexafluoride (629–632) .....	86
Requirements for Type A packages (633–649) .....	87
Requirements for Type B(U) packages (650–664) .....	89
Requirements for Type B(M) packages (665–666) .....	92
Requirements for Type C packages (667–670) .....	92
Requirements for packages containing fissile material (671–682).....	93
<b>SECTION VII. TEST PROCEDURES.....</b>	<b>99</b>
Demonstration of compliance (701–702) .....	99
Leaching test for LSA-III material and low dispersible radioactive material (703) .....	99
Tests for special form radioactive material (704–711) .....	100
Tests for low dispersible radioactive material (712) .....	102
Tests for packages (713–737) .....	103

SECTION VIII. APPROVAL AND ADMINISTRATIVE  
REQUIREMENTS..... 111

General (801–802) ..... 111

Approval of special form radioactive material and low dispersible  
radioactive material (803–804) ..... 111

Approval of package designs (805–814) ..... 112

Transitional arrangements (815–818) ..... 115

Notification and registration of serial numbers (819) ..... 116

Approval of shipments (820–823) ..... 116

Approval of shipments under special arrangement (824–826)..... 117

Competent authority approval certificates (827–829)..... 118

Contents of approval certificates (830–833)..... 121

Validation of certificates (834)..... 126

REFERENCES ..... 127

ANNEX I: SUMMARY OF APPROVAL AND PRIOR  
NOTIFICATION REQUIREMENTS..... 129

ANNEX II: CONVERSION FACTORS AND PREFIXES ..... 134

CONTRIBUTORS TO DRAFTING AND REVIEW ..... 137

BODIES FOR THE ENDORSEMENT OF  
IAEA SAFETY STANDARDS ..... 145

INDEX ..... 149

LIST OF TABLES

Table 1 Basic radionuclide values ..... 24

Table 2 Basic radionuclide values for unknown radionuclides  
or mixtures ..... 45

Table 3 Activity limits for excepted packages ..... 46

Table 4 Industrial package requirements for LSA material and SCO 55

Table 5 Conveyance activity limits for LSA material and  
SCO in industrial packages or unpackaged ..... 56

Table 6 Multiplication factors for tanks, freight containers,  
and unpackaged LSA-I and SCO-I ..... 57

Table 7 Categories of packages and overpacks ..... 58

Table 8	Excerpts from list of United Nations numbers, proper shipping names and descriptions, subsidiary risks and their relationship to the Schedules. . . . .	60
Table 9	TI limits for freight containers and conveyances not under exclusive use . . . . .	75
Table 10	CSI limits for freight containers and conveyances containing fissile material . . . . .	76
Table 11	Insulation data . . . . .	90
Table 12	Consignment mass limits for exceptions from the requirements for packages containing fissile material . . . . .	95
Table 13	Free drop distance for testing packages to normal conditions of transport . . . . .	105