

SBC

The Saudi Plumbing Code
SBC 701 - CC
Code & Commentaries

2024



TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER 1 —SCOPE AND ADMINISTRATION	1
SECTION 101 SCOPE AND GENERAL REQUIREMENTS	1
SECTION 102 APPLICABILITY	3
SECTION 103 CODE COMPLIANCE AGENCY	5
SECTION 104 DUTIES AND POWERS OF THE BUILDING OFFICIAL	6
SECTION 105 APPROVAL	8
SECTION 106 PERMITS	10
SECTION 107 CONSTRUCTION DOCUMENTS.....	14
SECTION 108 NOTICE OF APPROVAL	15
SECTION 109 FEES	15
SECTION 110 SERVICE UTILITIES	16
SECTION 111 TEMPORARY EQUIPMENT, SYSTEMS AND USES	17
SECTION 112 INSPECTIONS AND TESTING	17
SECTION 113 MEANS OF APPEALS.....	21
SECTION 114 BOARD OF APPEALS	22
SECTION 115 VIOLATIONS.....	22
SECTION 116 STOP WORK ORDER	24
CHAPTER 2 —DEFINITIONS.....	26
SECTION 201 GENERAL.....	26
SECTION 202 GENERAL DEFINITIONS	26
CHAPTER 3 —GENERAL REGULATIONS	64
SECTION 301 GENERAL.....	64
SECTION 302 EXCLUSION OF MATERIALS DETRIMENTAL TO THE SEWER SYSTEM.....	66
SECTION 303 MATERIALS	66
SECTION 304 RODENTPROOFING.....	68
SECTION 305 PROTECTION OF PIPES AND PLUMBING SYSTEM COMPONENTS	69
SECTION 306 TRENCHING, EXCAVATION AND BACKFILL	75
SECTION 307 STRUCTURAL SAFETY	77
SECTION 308 PIPING SUPPORT.....	82
SECTION 309 FLOOD HAZARD RESISTANCE	86
SECTION 310 WASHROOM AND TOILET ROOM REQUIREMENTS.....	87
SECTION 311 TOILET FACILITIES FOR WORKERS	87
SECTION 312 TESTS AND INSPECTIONS	87
SECTION 313 EQUIPMENT EFFICIENCIES.....	93
SECTION 314 CONDENSATE DISPOSAL	93
SECTION 315 PENETRATIONS	96
SECTION 316 ALTERNATIVE ENGINEERED DESIGN	96
CHAPTER 4 —FIXTURES, FAUCETS AND FIXTURE FITTINGS	136
SECTION 401 GENERAL.....	136
SECTION 402 FIXTURE MATERIALS	137
SECTION 403 MINIMUM PLUMBING FACILITIES	138
SECTION 404 ACCESSIBLE PLUMBING FACILITIES.....	151
SECTION 405 INSTALLATION OF FIXTURES	165



TABLE OF CONTENTS

SECTION 406 AUTOMATIC CLOTHES WASHERS	172
SECTION 407 BATHTUBS	173
SECTION 408 BIDETS	174
SECTION 409 DISHWASHING MACHINES	174
SECTION 410 DRINKING FOUNTAINS	175
SECTION 411 EMERGENCY SHOWERS AND EYEWASH STATIONS.....	177
SECTION 412 FAUCETS AND FIXTURE FITTINGS.....	178
SECTION 413 FLOOR AND TRENCH DRAINS.....	184
SECTION 414 FLOOR SINKS.....	186
SECTION 415 FLUSHING DEVICES FOR WATER CLOSETS AND URINALS.....	186
SECTION 416 FOOD WASTE DISPOSER UNITS.....	188
SECTION 417 GARBAGE CAN WASHERS	189
SECTION 418 LAUNDRY TRAYS	189
SECTION 419 LAVATORIES.....	190
SECTION 420 MANUAL FOOD AND BEVERAGE DISPENSING EQUIPMENT.....	191
SECTION 421 SHOWERS	191
SECTION 422 SINKS	195
SECTION 423 SPECIALTY PLUMBING FIXTURES	195
SECTION 424 URINALS.....	196
SECTION 425 WATER CLOSETS	197
SECTION 426 WHIRLPOOL BATHTUBS.....	198
CHAPTER 5 —WATER HEATERS	227
SECTION 501 GENERAL.....	227
SECTION 502 INSTALLATION	234
SECTION 503 CONNECTIONS.....	236
SECTION 504 SAFETY DEVICES.....	238
SECTION 505 INSULATION.....	244
CHAPTER 6 —WATER SUPPLY AND DISTRIBUTION.....	256
SECTION 601 GENERAL.....	256
SECTION 602 WATER REQUIRED	257
SECTION 603 WATER SERVICE.....	259
SECTION 604 DESIGN OF BUILDING WATER DISTRIBUTION SYSTEM.....	265
SECTION 605 MATERIALS, JOINTS AND CONNECTIONS.....	279
SECTION 606 INSTALLATION OF THE BUILDING WATER DISTRIBUTION SYSTEM	302
SECTION 607 HOT WATER SUPPLY SYSTEM.....	307
SECTION 608 PROTECTION OF POTABLE WATER SUPPLY.....	318
SECTION 609 HEALTH CARE PLUMBING	338
SECTION 610 DISINFECTION OF POTABLE WATER SYSTEM	339
SECTION 611 DRINKING WATER TREATMENT UNITS	340
SECTION 612 SOLAR SYSTEMS.....	341
SECTION 613 TEMPERATURE CONTROL DEVICES AND VALVES.....	341
CHAPTER 7 —SANITARY DRAINAGE.....	403
SECTION 701 GENERAL.....	403
SECTION 702 MATERIALS	405
SECTION 703 BUILDING SEWER.....	414



TABLE OF CONTENTS

SECTION 704 DRAINAGE PIPING INSTALLATION	415
SECTION 705 JOINTS	419
SECTION 706 CONNECTIONS BETWEEN DRAINAGE PIPING AND FITTINGS	432
SECTION 707 PROHIBITED JOINTS AND CONNECTIONS	437
SECTION 708 CLEANOUTS	437
SECTION 709 FIXTURE UNITS.....	444
SECTION 710 DRAINAGE SYSTEM SIZING	445
SECTION 711 OFFSETS IN DRAINAGE PIPING IN BUILDINGS OF FIVE STORIES OR MORE.....	448
SECTION 712 SUMPS AND EJECTORS	449
SECTION 713 COMPUTERIZED DRAINAGE DESIGN.....	453
SECTION 714 BACKWATER VALVES	454
SECTION 715 VACUUM DRAINAGE SYSTEMS	455
SECTION 716 REPLACEMENT OF UNDERGROUND BUILDING SEWERS AND BUILDING DRAINS BY PIPE-BURSTING METHODS	456
SECTION 717 RELINING BUILDING SEWERS AND BUILDING DRAINS	457
SECTION 718 REHABILITATION OF BUILDING SEWERS AND BUILDING DRAINS	460
CHAPTER 8 —INDIRECT/SPECIAL WASTE	498
SECTION 801 GENERAL.....	498
SECTION 802 INDIRECT WASTES	499
SECTION 803 SPECIAL WASTES.....	506
CHAPTER 9 —VENTS	518
SECTION 901 GENERAL.....	518
SECTION 902 MATERIALS	520
SECTION 903 VENT TERMINALS	520
SECTION 904 OUTDOOR VENT EXTENSIONS	522
SECTION 905 VENT CONNECTIONS AND GRADES	524
SECTION 906 VENT PIPE SIZING.....	526
SECTION 907 VENTS FOR STACK OFFSETS	528
SECTION 908 RELIEF VENTS—STACKS OF MORE THAN 10 BRANCH INTERVALS.....	529
SECTION 909 FIXTURE VENTS	529
SECTION 910 INDIVIDUAL VENT	531
SECTION 911 COMMON VENT	531
SECTION 912 WET VENTING	532
SECTION 913 WASTE STACK VENT.....	535
SECTION 914 CIRCUIT VENTING	536
SECTION 915 COMBINATION WASTE AND VENT SYSTEM	537
SECTION 916 ISLAND FIXTURE VENTING	539
SECTION 917 SINGLE-STACK VENT SYSTEM.....	540
SECTION 918 AIR ADMITTANCE VALVES.....	542
SECTION 919 ENGINEERED VENT SYSTEMS.....	545
SECTION 920 COMPUTERIZED VENT DESIGN	547
CHAPTER 10 —TRAPS, INTERCEPTORS AND SEPARATORS.....	619
SECTION 1001 GENERAL.....	619
SECTION 1002 TRAP REQUIREMENTS	619
SECTION 1003 INTERCEPTORS AND SEPARATORS.....	624



TABLE OF CONTENTS

SECTION 1004 MATERIALS, JOINTS AND CONNECTIONS.....	638
CHAPTER 11 —STORM DRAINAGE.....	652
SECTION 1101 GENERAL.....	652
SECTION 1102 MATERIALS	654
SECTION 1103 TRAPS	656
SECTION 1104 CONDUCTORS AND CONNECTIONS	657
SECTION 1105 ROOF DRAINS	657
SECTION 1106 SIZE OF CONDUCTORS, LEADERS AND STORM DRAINS.....	658
SECTION 1107 SIPHONIC ROOF DRAINAGE SYSTEMS.....	659
SECTION 1108 SECONDARY (EMERGENCY) ROOF DRAINS	659
SECTION 1109 COMBINED SANITARY AND STORM PUBLIC SEWER.....	660
SECTION 1110 CONTROLLED FLOW ROOF DRAIN SYSTEMS.....	660
SECTION 1111 SUBSOIL DRAINS	661
SECTION 1112 BUILDING SUBDRAINS	662
SECTION 1113 SUMPS AND PUMPING SYSTEMS.....	662
CHAPTER 12 —SPECIAL PIPING AND STORAGE SYSTEMS	676
SECTION 1201 GENERAL.....	676
SECTION 1202 MEDICAL GASES.....	676
SECTION 1203 OXYGEN SYSTEMS.....	677
CHAPTER 13 —NONPOTABLE WATER SYSTEMS	682
SECTION 1301 GENERAL.....	682
SECTION 1302 ON-SITE NONPOTABLE WATER REUSE SYSTEMS	690
SECTION 1303 NONPOTABLE RAINWATER COLLECTION AND DISTRIBUTION SYSTEMS	695
SECTION 1304 RECLAIMED WATER SYSTEMS.....	701
CHAPTER 14 —SUBSURFACE GRAYWATER SOIL ABSORPTION SYSTEMS	704
SECTION 1401 GENERAL.....	704
SECTION 1402 SYSTEM DESIGN AND SIZING	704
SECTION 1403 INSTALLATION	707
CHAPTER 15 —REFERENCED STANDARDS	712
APPENDIX A —PLUMBING PERMIT FEE SCHEDULE.....	739
APPENDIX B —RATES OF RAINFALL FOR VARIOUS CITIES.....	741
APPENDIX C —STRUCTURAL SAFETY	743
SECTION C101 CUTTING, NOTCHING AND BORING IN WOOD MEMBERS.....	743
APPENDIX D —DEGREE DAY AND DESIGN TEMPERATURES.....	747
APPENDIX E —SIZING OF WATER PIPING SYSTEM.....	751
SECTION E101 GENERAL.....	751
SECTION E102 INFORMATION REQUIRED	751
SECTION E103 SELECTION OF PIPE SIZE.....	752
SECTION E201 SELECTION OF PIPE SIZE.....	757
SECTION E202 DETERMINATION OF PIPE VOLUMES	758



TABLE OF CONTENTS

APPENDIX F : BOARD OF APPEALS.....	769
SECTION F101 GENERAL.....	769

