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EPCOT BUILDING CODES
2016 Supplement to the 2015 Edition
Code Change Submittals
Effective Date March 18, 2016

BUILDING

BS16-0001

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION 202
DEFINITIONS

PUBLIC BUILDING. Building or part of a building that is open to public access as described in ~~Section 3.5 of~~ the *EPCOT Accessibility Code for Building Construction*.

BS16-0002

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION 303
PLANS AND SPECIFICATIONS

303.1 Plans and Specifications Required.
(a) Each application for a permit shall be accompanied by an electronic set of plans or two sets of hardcopy plans, specifications and calculations when required by the Building Official.

(e) Plans shall be drawn to scale, identified by name of designer and owner on every sheet, and shall be an electronic Portable Document Format (PDF) or mechanically reproduced prints ~~on substantial paper or cloth~~. A plot plan shall show all occupied and unoccupied parts of the lot or lots. The use, name and occupancy of all parts of the building shall be shown, including all foundations, wall sections, floor plans, elevations and structural details. Mechanical, plumbing, electrical, fire sprinkler and alarm details shall be shown on the plans and representing the designs for those disciplines, along with such other information as may be required to show clearly the nature, character and location of the proposed work.

BS16-0003

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

401.5 Construction Fences. For requirements see Appendix F.

BS16-0004

Proponent: Jonathan Cantwell, Fire Protection Engineer

402.4 Balconies and Appendages. Oriel windows, balconies, unroofed porches, cornices, belt courses and appendages, such as water tables, sills, capitals, bases and architectural projections, may project over the public property of the building side a distance determined by the clearance of the lowest point of the projection above the grade immediately below, as follows:

~~Clearance above grade less than 8 feet – no projection permitted. Clearance above ground more than 8 feet – 1 inch of projection is permitted for each additional inch of clearance, provided that no such projection shall exceed a distance of 4 feet.~~
Projections less than 8 feet are not permitted above a walking surface on public or private property. One inch of projection is permitted for every one inch above 8 feet, up to a maximum of 4 feet of projection.

BS16-0005

Proponent: Jonathan Cantwell, Fire Protection Engineer

402.8 Roof Drainage. Drainage water collected from the roof of a building or structure, awning, canopy or marquee that exceeds 16 square feet in area, or condensate from mechanical equipment, shall not ~~flow over~~discharge on to a public walking surface.

BS16-0006

Proponent: John O'Connor, Sr. Plans Examiner & Jonathan Cantwell, Fire Protection Engineer

503.11 Guardrails. All enclosed floor and roof openings; operable windows in exterior walls whose sill height is less than 30 inches above the floor below and more than 30 inches above grade; open and glazed sides of landings; and ramps, stairs, balconies or porches, which are more than 30 inches above grade, or a floor below and all publicly accessible docks regardless of water level shall be protected by a guardrail. Guardrails shall form a vertical protective barrier not less than 42 inches high. Open guardrails shall have intermediate rails or ornamental pattern such that a 4-inch-diameter sphere cannot pass through any opening. ~~up to a height of 34 inches. From 34 inches to 42 inches above the adjacent walking surfaces, a sphere of 8 inches shall not pass through.~~ A bottom rail or curb shall be provided that will reject the passage of a 2-inch-diameter sphere. Construction of guardrails shall be adequate in strength, durability and attachment for their purpose as described in Subsection 902.2(h).

Exceptions:
1. Guardrails need not be provided on the loading side of loading docks.

2. Guardrails for one and two family residences ~~guest rooms~~ shall be a minimum of ~~42~~ 36 inches high.

3. Guardrails on a balcony, loge or gallery immediately in front of the first row of fixed seats and which are not at the end of an aisle shall be not less than 26 inches high. Guardrails 42 inches high and the width of the aisle shall be located at the front edge of a balcony, loge or gallery where the aisle terminates. When the slope of the aisle is less than 1:8, the guardrail shall be 42 inches high where the aisle terminates.

4. In assembly seating areas, guards at the end of aisles where they terminate at a fascia of boxes, balconies and galleries shall not have openings which allow passage of a sphere 4 inches in diameter up to a height of 26 inches. From a height of 26 inches to 42 inches above the adjacent walking surfaces, guards shall not have openings which allow passage of a sphere 8 inches in diameter.

~~4.~~ 5. A guardrail shall not be required at the front of any stage and enclosed platforms.

~~5.~~ 6. For areas not accessible to the public, including catwalks and mechanical areas, the clear distance between rails, measured at right angles to the rails, shall not exceed 18 inches.

7~~6~~. Guardrails shall not be required along vehicle pits when the depth of the pit is less than 48 inches.

8~~7~~. The triangular openings formed by the riser, tread and bottom rail at the open side of a stairway, shall be a maximum size such that a sphere of 6 inches in diameter cannot pass through the opening.

9. Docks where access is restricted or where space is dedicated for mooring of boats.

BS16-0007

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

503.19 Solid Wall Structures. Buildings or structures of solid wall construction used for a duration of 90 days or less shall comply with Appendix N.

BS16-0008

Proponent: Jonathan Cantwell, Fire Protection Engineer

509.5 Special Requirements—Group D Occupancies.
(a) Storage of volatile flammable liquids shall not be permitted in buildings housing Group D occupancies, and the handling of such volatile flammable liquids shall not be permitted in quantities of more than 1 gallon, except when such handling complies with the requirements of EPCOT Standards 5-2, 5-4 and 5-5.

~~(b)Smoke detectors complying with the requirements of EPCOT Standard 7-4 may be used in lieu of an approved automatic sprinkler system in patient sleeping rooms of less than 600 square feet in area, in surgeries, delivery rooms, intensive care and similar areas of Group D, Division 2 hospitals.~~

(b~~c~~) An approved fire alarm system shall be provided for all Group D, Division 2 occupancies. Audible alarm devices shall be used in all areas where patients are not housed. Visible alarm devices may be used in lieu of audible alarm devices in areas occupied by patients.

(cd) Central heating plant or boilers using solid or liquid fuel shall be protected by a 2-hour fire-resistive separation without openings, except for air-distribution ducts with fire dampers at the plane of the wall. When the fuel used is natural gas, the wall may be a minimum of 1-hour fire-resistive construction.

(de) Installation of boiler rooms and heating equipment shall be in accordance with the requirements of Subsection 503.17, Table 5.2 and the EPCOT Mechanical Code.

BS16-0009

Proponent: Jonathan Cantwell, Fire Protection Engineer

715.1 Criteria.

~~(i) Sprinkler systems exposed to freezing temperatures that do not meet the requirements of Paragraph (f) shall be insulated.~~

BS16-0010

Proponent: Jonathan Cantwell, Fire Protection Engineer

804.2 Swing.
(f) Power-operating sliding doors may be used provided the sliding leaf is equipped with an emergency swing (panic release) feature. The force to set the door into motion shall not exceed 50 pounds force.

A readily visible, durable sign in letters not less than 1 inch high on a contrasting background that reads as follows shall be located on the egress side of each door opening:

IN EMERGENCY, PUSH TO OPEN

BS16-0011

Proponent: Jonathan Cantwell, Fire Protection Engineer

805.7 Construction.
(a) Corridor walls and ceilings shall be not less than 1-hour fire-resistive construction.

Exceptions:
1. Exterior balcony railings.
2. Corridors having a tributary occupant load of 30 or less in one story, single occupancy Group B or I.
3. Corridors formed by temporary partitions regulated by Subsection 709.2 that do not exceed 5 feet, 9 inches in height.
4. Corridor walls that are also exterior walls of a building.
5. For buildings of unprotected construction Type IV, V, or VI, ceiling construction should be consistent with type of construction.
6. Where the corridor ceiling is constructed as required for the corridor walls, the walls shall be permitted to terminate at the upper membrane of such ceiling assembly.

BS16-0012

Proponent: Jonathan Cantwell, Fire Protection Engineer

805.8 Openings.
(b) Other openings shall be protected by a fixed wired glass not less than 1/4 inch thick set in steel frame or a 1-hour, fire-rated automatic-closing device or listed window assembly with fire-protection-rated glazing of not less than 3/4 hour. Fire-protection-rated glazing shall be tested in accordance with, and shall meet the acceptance criteria of, NFPA 257 or UL 9. The area of all openings other than doors in any part of a corridor shall not exceed 25 percent of the area of the corridor wall of the room from which the corridor is separated. For occupancy separations, see Section 502, and for fire division wall requirements, see Section 708.

Exception: Fire-resistance-rated glazing tested as part of a 1-hour fire-resistance-rated wall assembly in accordance with ASTM E119 or UL 263 shall be permitted in fire doors and fire window assemblies in accordance with their listings and shall not otherwise be required to comply with this Section.

(c) Duct penetrations of corridor walls shall be protected with listed smoke dampers in accordance with the *EPCOT Mechanical Code.*

BS16-0013

Proponent: Jonathan Cantwell, Fire Protection Engineer

807.4 Handrails. A ramp with slope exceeding 1 foot in 20 feet shall have handrails as required for stairways, except that intermediate handrails shall not be required. If handrails are not continuous, they shall extend at least

~~18~~ 12 inches beyond the top and bottom of the ramp segment and shall be parallel with the floor or ground surface.

Exception: Ramps with a rise of 6 inches or less.

BS16-0014

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

813.2 Egress Illumination.
(g) Automatic, motion sensor–type lighting switches shall be permitted within the means of egress, provided that the switch controllers comply with all of the following:
(1) The switch controllers are listed.
(2) The switch controllers are equipped for fail-safe operation and evaluated for this purpose.
(3) The illumination timers are set for a minimum 15-minute duration.
(4) The motion sensor is activated by any occupant movement in the area served by the lighting units.
(5) The switch controller is activated by activation of the building fire alarm system, if provided.

BS16-0015

Proponent: Scott Brooks, WDW A&FE

902.2 Special Loads.
(h) Railings. ~~Stairway, balcony railings, both exterior and interior, and~~
1. H~~h~~andrails and guardrails in front of reviewing stands shall be designed to resist a horizontal force of 50 pounds per lineal foot, applied in any direction at the top of the railing. Railings shall also, but not necessarily simultaneously, withstand a minimum ~~250~~200-pound concentrated load applied ~~at any point in any direction for the most critical design condition.~~ in any direction at any point on the handrail or top rail to produce the maximum load effect on the element being considered.
2. Intermediate rails (all those except the handrail), balusters, and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails.

Reactions due to this loading are not required to be superimposed with those of Section 902.2(h)1.

Exception: All handrails, grab bars and tub and shower seats shall comply with the concentrated load requirements of the *EPCOT Accessibility Code for Building Construction.*

BS16-0016

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

F-101.10 Construction Fencing.
(a) Construction fencing is required to have an approved building permit issued prior to installation.
Exception: Construction fences 4 feet high and under.
(b) Construction fences located within or adjacent to fire lanes must be approved by the Fire Marshal.
(c) Construction fences located more than 10 feet from guest or cast access routes may be designed to comply with Subsection 904.2(e).
(d) Construction fences over 4 feet high and up to and including 8 feet high shall be installed to meet the minimum requirements of Figure F-1.
(e) Construction fences over 8 feet high shall be required to be designed and installed to comply with the full wind load requirements of this Code.

Note: Added the following Exception to Subsection 301.1(a) Permits Required.

8. Fences or railings less than 3 feet high.

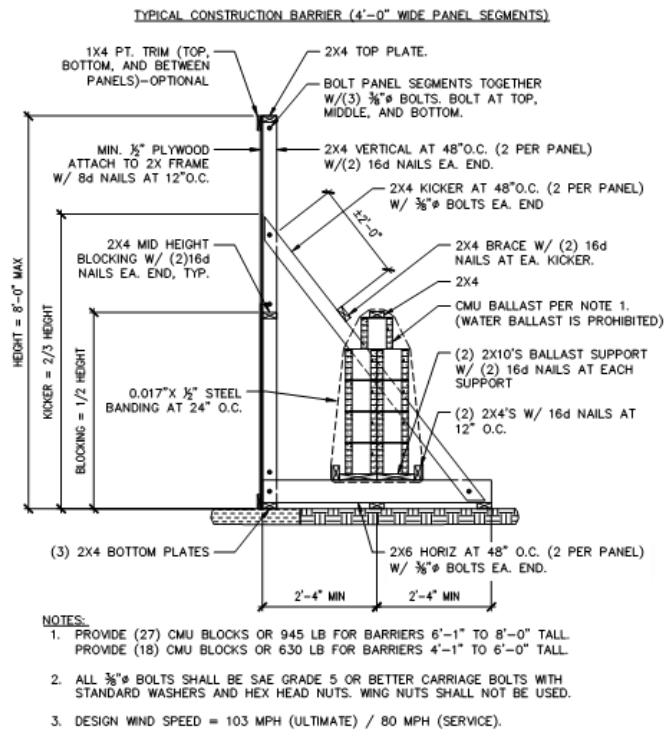

Figure F1

BS16-0017

Proponent: Jonathan Cantwell, Fire Protection Engineer

Update catwalk language in several Sections.

SECTION M-301
EXITS AND EMERGENCY LIGHTING

M-301.1 Exits.
(b) Catwalks shall have at least two means of exit, one of which may be a ladder. No catwalk shall have more than one 20-foot dead end.
1. Maximum travel distance on catwalks to 200 feet.
2. A minimum width of 22 inches is permitted.

(c) All exit doors shall be a minimum of 36 inches in width.

*(**Note**: Added changes to Section 5-12.301 for consistency.)*

SECTION 5-12.301
DESIGN AND CONSTRUCTION

5-12.301.1 Types of Construction. Buildings or attractions specified in Subsection 5-12.101.1 shall comply with the types of construction specified in Chapters 6 and 7. Where the type of construction is not clearly identified therein, the Building Official shall designate the required type of construction in accordance with the occupancy requirements of the building or attraction. Catwalks shall be constructed of noncombustible materials. Fire protection of steel and iron may be omitted.

5-12.301.2 Interior Finish. The interior finish within amusement attractions and special amusement buildings shall be Class 1 throughout the show space and queue area in accordance with Section 711.

*(**Note**: Added changes to Section 5-12.401 for consistency.)*

SECTION 5-12.401
AMUSEMENT BUILDINGS AND
AMUSEMENT ATTRACTIONS

5-12.401.1 Exits.
(a) Means of egress from amusement buildings and attractions, including stairways and platforms, ramps, fences and barricades, seats for spectators and safe dispersal areas, shall comply with the applicable requirements of Chapter 8 as specified by the Building Official.

(b) Catwalks shall comply with the specific catwalk requirements found in Appendix M.

(c~~b~~) Exit Illumination and Signs. Exit…

BS16-0018

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION I-401
SMOKE VENTING

I-401.1 Smoke-Control System. A mechanically operated air-handling system shall be installed in covered mall buildings, which will restrict the movement of smoke to the general area of fire origin and maintain the ~~exiting~~ egress system in a condition that is safe ~~for exiting~~.

I-401.2

(a) The smoke-control system shall be designed in accordance with Section 720. ~~connected to both the sprinkler system and the smoke detector system, and shall automatically operate when either the sprinkler system or smoke detector system is actuated.~~ The smoke-control system shall go into operation immediately following actuation of the smoke detector. The smoke-control system shall be as follows:

Smoke detectors shall be provided as follows:
1. A minimum of one area-type smoke detector in each tenant space having an opening to the mall. Such detector shall be located at each opening to the mall.
2. Area-type smoke detectors or approved projected beam detectors shall be installed to monitor the mall area that can contain combustible loading, such as kiosks or displays. Such installations shall be engineered to distinguish fire in the mall from fire in the tenant space.

(b) The smoke-control equipment for the mall shall be separate from that serving tenant spaces.

(c) The covered mall building shall be compartmented into smoke-control zones. Smoke-control zones shall be separated from each other by construction having a fire-resistive time period of not less than 1 hour. Walls between tenant spaces used to separate smoke-control zones shall extend from the floor to the underside of the floor or roof above.

(d) A smoke barrier shall be provided separating the tenant ceiling space from the mall ceiling space.

(e) A smoke-control zone shall coincide with the area of coverage of a single sprinkler supply. Within that sprinkler zone, there may be one or more air-moving systems, but no single smoke-control zone shall be larger than the sprinkler area.

~~(f) When a fire occurs within a tenant sprinkler zone, that zone is to go to 100 percent exhaust and the supply air to that zone is to be shut down. All adjoining tenant smoke-control zones shall go into normal operation.~~
~~The mall shall go to 100 percent fresh air supply without exhaust or recirculation.~~
~~(g)When a fire occurs within the mall, the mall smoke control equipment shall go to 100 percent exhaust and the adjoining tenant spaces shall go into normal operation.~~
~~(h)The covered mall building smoke-control equipment shall be sized to provide a minimum of six air changes per hour.~~
~~(i) Mall exhaust inlets shall not be less than 6 feet above the walking surface for each pedestrian level.~~
~~(j) During those hours when the building air-conditioning systems are not operating, smoke detector or sprinkler systems shall be designed so the activation of either will transmit an alarm as required in Paragraph (a) and shall activate the smoke-control system.~~

I-401.3 Acceptance Testing. The equipment shall be tested in accordance with Section 702.18.~~before the smoke control system is accepted by the Building Official. It shall be tested~~ Final acceptance of the system shall be in the presence of the Building Official to confirm that the system is operating in compliance with the requirements of this Subsection.
~~(a)Operational testing of individual components shall be conducted when they are installed and shall be certified by the installer as being complete and functional.~~
~~(b)The mechanical engineer or designer of the smoke-control system shall coordinate the acceptance testing. It shall be demonstrated to the Building Official that the final system complies with the approved specified design and that it is operating properly.~~
~~(c)The system shall consist of an investigation of the performance during:~~
~~1. Automatic smoke-control mode, after activation of first alarm.~~
~~2. Manual override of normal and smoke-control modes.~~
~~3. Return to normal.~~

BS16-0019

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

N-101.15 Temporary Toilet Fixtures. Additional permanent or temporary toilet fixtures shall be provided in accordance with *EPCOT Plumbing Code* Table 403.1 when the temporary occupant load is in addition to the original occupant load.

BS16-0020

Proponent: Mike Rickabaugh, Deputy Building Official

New Subsection

5-1.401.13 Escalator and Moving Walks. Exterior of trusses shall be enclosed with a 1-hour fire-rated material.

5-1.401.13.1 Escalators shall be provided with guardrails that comply with Section 503.11.

BS16-0021

Proponent: Jonathan Cantwell, Fire Protection Engineer

5-12.401.4 Smoke Control. A smoke control system shall be designed to control the migration of products of combustion in the show space. Upon detection of a fire, the system shall shut down the air supply to the fire floor and the return air from all non-fire floors. Any other approved design that will achieve the same level of smoke control as described in this Subsection may be used in lieu of these requirements.

(a) Show spaces shall have a smoke exhaust system located at the ceiling. Such system shall be designed in accordance with Section 720 and shall not be less than exhaust 40,000 cubic feet per minute per smoke zone. or six air changes per hour, whichever is greater. When the volume of the show area exceeds 600,000 cubic feet, the exhaust system shall be sized to provide a minimum of four air changes per hour. Supply inlets shall be provided at the lowest level of the show area. These inlets shall be sized to provide 75 percent of the exhaust air.

(b) When the heights of the show area exceeds three stories, an exhaust system shall be provided as required in Paragraph(a), however, supply air shall be introduced mechanically from the floor of the show area. The capacity of the supply shall be 75 to 85 percent of the exhaust.

Fuel Gas

FGS16-0001

Proponent: Kenny Locke, Chief Technical Inspector

New Section

309.15 Flanges.

309.15.1 General Requirements. All flanges shall comply with ASME B16.1, ASME B16.20 or MSS SP-6. The pressure-temperature ratings shall equal or exceed that required by the application.

309.15.2 Flange Facings. Standard facings shall be permitted for use under this Code. Where 150-pound pressure-rated steel flanges are bolted to Class 125 cast-iron flanges, the raised face on the steel flange shall be removed.

309.15.3 Lapped Flanges. Lapped flanges shall be used only above ground or in exposed locations accessible for inspection.

FGS16-0002

Proponent: Kenny Locke, Chief Technical Inspector

New Section 530

SECTION 530
GENERATORS

530.1 Gas Supply. Where the gas supply is connected to the building gas supply system, it shall be connected on the supply side of the main gas shutoff valve and marked as supplying an emergency generator.

530.2 Main Shutoff Valve. The building's main gas shutoff valve shall be marked or tagged to indicate the existence of the separate generator shutoff valve.

530.3 Demands. The fuel supply for gas-fueled and liquid-fueled generators shall be designed to meet the demands of the generator for all of the following factors:
(a) Sizing of fuel lines
(b) Valves, including manual shutoff
(c) Battery-powered fuel solenoids
(d) Gas regulators
(e) Regulator vent piping
(f) Flexible fuel line section
(g) Fuel line filters
(h) Fuel vaporizers (LP-Gas)
(i) Ambient temperature effect of fuel tank vaporization rates of LP-Gas where applicable

530.4 Fuel Storage and Supply Lines. The fuel storage and supply lines shall be in accordance with this Code.

530.5 Valves. All manual fuel system valves shall be of the indicating type.

Mechanical

MS16-0001

Proponent: Kenny Locke, Chief Technical Inspector

New Sections: 405.1 through 405.6

405.1 Where Required. Smoke detectors listed for use in air distribution systems shall be located as follows:
(a) Downstream of the air filters and ahead of any branch connections in air supply systems having a capacity greater than 2,000 ft3/min.
(b) At each story prior to the connection to a common return and prior to any recirculation or fresh air inlet connection in air return systems having a capacity greater than 15,000 ft3/min and serving more than one story.
(c) All air distribution systems serving a means of egress shall be provided with a duct smoke detector and automatic shutdown.

405.1.1 Area Smoke Detectors. Return system smoke detectors shall not be required where the entire space served by the air distribution system is protected by a system of area smoke detectors installed in accordance with NFPA 72.

405.1.2 Exhaust. Smoke detectors shall not be required for fan units whose sole function is to remove air from the inside of the building to the outside of the building.

405.2 Function.

405.2.1 Automatic Stop. Smoke detectors required by Subsection 405.1 shall automatically stop their respective fan(s) on detecting the presence of smoke.

Exception: Where the return air fan is functioning as part of an engineered smoke-control system and a different mode is required, the smoke detectors shall not be required to automatically stop their respective fans.

405.3 Supervision. The duct smoke detectors shall be connected to a fire alarm system where a fire alarm system is required by the *EPCOT Building Code* and the *EPCOT Fire Prevention Code*. The actuation of a duct smoke detector shall activate a visible and audible supervisory signal at a constantly attended location.

Exceptions:
1. The supervisory signal at a constantly attended location shall not be required where the duct smoke detector activates the building's fire alarm system.
2. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and audible signal in an approved location. Duct smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

405.4 Fire Sprinkler Interlock Required. In buildings or structures provided with an automatic fire sprinkler system, air distribution systems with a capacity greater than 2,000 ft3/min shall shutdown upon the activation of the automatic fire sprinkler water flow alarm.

405.4.1 Means of Egress. All air distribution systems serving a means of egress in buildings or structures with automatic fire sprinkler systems shall shutdown upon activation of the automatic fire sprinkler water flow alarm.

405.5 Controls. All controls shall be listed.

405.6 Manual Reset. Air distribution systems required to shut down by this Section shall not restart until manually reset.

~~**405.1 Capacity Greater than 15,000 Cubic Feet per Minute (CFM).** Recirculating air systems shall automatically shut down when smoke within the system becomes excessive and upon the activation of an automatic sprinkler water flow alarm. The automatic smoke control shall be in the return airstream prior to exhausting from the building or mixing with fresh air makeup.~~

~~**405.2 Capacity Greater than 2,000 CFM and Less than 15,000 CFM.** Recirculating air systems shall automatically shut down upon the activation of an automatic sprinkler waterflow alarm.~~

~~**405.3 Capacity 2,000 CFM or Less.** Recirculating air systems with a fan capacity of 2,000 cfm or less, but serving an area used for egress, shall have automatic shut down.~~

~~**405.4 Controls.** All controls shall be listed. Upon activation, the system shall not restart until manually reset.~~

MS16-0002

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION 407
STAIRWELL ENCLOSURES

407.1 Ducts Serving Other Spaces. Ducts serving other spaces shall not be located in or pass through exit enclosures.

407.2 Smokeproof Enclosures. Where required for high-rise buildings, stairwells shall be designed as smokeproof enclosures in accordance with *EPCOT Building Code* Subsection 720.20.

~~**Minimum Ventilation.** When the EPCOT Building Code requires the stair shaft to be ventilated with mechanical supply and exhaust air, there shall be a minimum of 2,500 cfm discharged through a dampered relief opening or an exhaust fan at the top of the stair shaft. The supply shall be sufficient to provide a minimum positive pressure of 0.05 inch water column, in addition to the maximum anticipated stack pressure, relative to other parts of the building measured with all doors closed. The combined positive pressure shall not exceed 0.35-inch water column. The air supply shall be taken directly from outside of the building. The stair pressure shall be static pressures measured at the level of discharge from the stair.~~
~~**Exception:** The minimum positive pressure shall be increased to 0.15-inch water column in an unsprinklered building.~~

MS16-0003

Proponent: Kenny Locke, Chief Technical Inspector

New Section

609.8 Reserved.

609.9 Shaft Enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:
1. Fire dampers are not required at penetrations of shafts where:

1.1. Steel exhaust subducts extend at least 22 inches vertically in exhaust shafts provided that there is a continuous airflow upward to the outdoors; or
1.2. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly; or
1.3. Ducts are used as part of an approved smoke control system in accordance with the *EPCOT Building Code*, and where the fire damper will interfere with the operation of the smoke control system; or
1.4. The penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.

2. In Group B and R occupancies equipped throughout with an automatic sprinkler system in accordance with the *EPCOT Building Code*, smoke dampers are not required at penetrations of shafts where kitchen, clothes dryer, bathroom and toilet room exhaust openings with steel exhaust subducts, having a minimum thickness of 0.0187 inch (No. 26 gage), extend at least 22 inches vertically and the exhaust fan at the upper terminus is powered continuously in accordance with the provisions of the *EPCOT Building Code* for emergency power systems, and maintains airflow upward to the outdoors.

3. Smoke dampers are not required at penetrations of exhaust or supply shafts in parking garages that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.

4. Smoke dampers are not required at penetrations of shafts where ducts are used as part of an approved mechanical smoke control system designed in accordance with the *EPCOT Building Code* and where the smoke damper will interfere with the operation of the smoke control system.

5. Fire dampers and combination fire/smoke dampers are not required in kitchen and clothes dryer exhaust systems installed in accordance with this Code.

607.9.1 Enclosure at the Bottom. Shaft enclosures that do not extend to the bottom of the building or structure shall be protected in accordance with the *EPCOT Building Code*.

PLUMBING

PS16-0001

Proponent: Kenny Locke, Chief Technical Inspector and Jonathan Cantwell, Fire Protection Engineer

CHAPTER 2
DEFINITIONS

HOT WATER. Water at a temperature greater than or equal to ~~120°F~~ 110°F.

NIGHTCLUB. An occupancy that contains some or all of the following:

- Low lighting levels;
- Entertainment by a live band or recorded music generating above-normal sound levels;
- Later-than-average operating hours;
- Tables and seating arranged or positioned so as to create ill-defined aisles;
- A specific area designated for dancing;
- Service facilities for alcoholic beverages and food; and
- High occupant load density.

Note: Add footnote to Table 403.1. *(See Table at end of document.)*

PS16-0002

Proponent: Scott Brooks, WDW A&FE

Delete Section 501.9

~~**501.9 Buildings Other Than Dwelling or Dwelling Units.** All lavatories and hand sinks shall be equipped with devices that limit the outlet temperature to a maximum of 110°F.~~

PS16-0003

Proponent: Kenny Locke, Chief Technical Inspector

New Sections in 607

607.1 Where Required. In occupied structures, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry or building maintenance.

Exceptions: ~~In non-residential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. Tempered water shall be delivered from accessible hand-washing facilities.~~
1. In non-residential occupancies tempered water may be supplied for bathing and washing purposes.
~~2~~. Tempered water shall be delivered from accessible hand-washing facilities.

607.1.1 Temperature Limiting Means. A thermostat control for a water heater shall not serve as the temperature limiting means for the purposes of complying with the requirements of this Code for maximum allowable hot or tempered water delivery temperature at fixtures.

607.1.2 Tempered Water Temperature Control. Tempered water shall be supplied through a water temperature limiting device that conforms to ASSE 1070 and shall limit the tempered water to a maximum of 110°F. This provision shall not supersede the requirement for protective shower valves in accordance with Subsection 424.4.

TABLE 403.1
MINIMUM NUMBER OF PLUMBING FACILITIES[a]
(see Subsections 403.2 and 403.3)

	OCCUPANCY	WATER CLOSETS (Urinals see Subsection 419.2)		LAVATORIES	BATHTUBS/ SHOWERS	DRINKING FOUNTAINS (see Subsection 410.1)	OTHERS
		Male	Female				
ASSEMBLY	Nightclubs[g]	1 per 40	1 per 25	1 per 75	—	1 per 500	1 service sink
	Restaurants	1 per 75	1 per 50	1 per 200	—	1 per 500	1 service sink
	Theaters, halls, museums, etc.	1 per 125	1 per 65	1 per 200	—	1 per 1,000	1 service sink
	Coliseums, arenas (less than 3,000 seats)	1 per 75	1 per 40	1 per 150	—	1 per 1,000	1 service sink
	Coliseums, arenas (3,000 seats or greater)	1 per 120	1 per 60	1 per 150	—	1 per 1,000	1 service sink
	Churches[b]	1 per 150	1 per 75	1 per 200	—	1 per 1,000	1 service sink
	Stadiums (less than 3,000 seats), pools, etc.	1 per 100	1 per 50	1 per 150	—	1 per 1,000	1 service sink
	Stadiums (3,000 seats or greater)	1 per 150	1 per 75	1 per 150	—	1 per 1,000	1 service sink
	Business (see Subsections 403.2, 403.4 and 403.5)	1 per 50		1 per 80	—	1 per 100	1 service sink
	Educational	1 per 50		1 per 50	—	1 per 100	1 service sink
	Factory and industrial	1 per 100		1 per 100	(see Section 411)	1 per 400	1 service sink
INSTITUTIONAL	Passenger terminals and transportation facilities	1 per 500		1 per 750	—	1 per 1,000	1 service sink
	Residential care	1 per 10		1 per 10	1 per 8	1 per 100	1 service sink
	Hospitals, ambulatory nursing home patients[c]	1 per room[d]		1 per room[d]	1 per 15	1 per 100	1 service sink floor
	Day nurseries[e], sanitariums, non-ambulatory nursing home patients, etc.[c]	1 per 15		1 per 15	1 per 15[c]	1 per 100	1 service sink
	Employees, other than residential care[c]	1 per 25		1 per 35	—	1 per 100	—
	Visitors, other than residential care	1 per 75		1 per 100	—	1 per 500	—
	Prisons[c]	1 per cell		1 per cell	1 per 15	1 per 100	1 service sink
	Asylums, reformatories, etc.[c]	1 per 15		1 per 15	1 per 15	1 per 100	1 service sink
	Mercantile (see Subsections 403.2, 403.4 and 403.5)	1 per 500		1 per 750	—	1 per 1,000	1 service sink
RESIDENTIAL	Hotels, motels	1 per guest room		1 per guest room	1 per guest room	—	1 service sink
	Lodges	1 per 10		1 per 10	1 per 8	1 per 100	1 service sink
	Multiple family	1 per dwelling unit		1 per dwelling unit	1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units[f]
	Dormitories	1 per 10		1 per 10	1 per 8	1 per 100	1 service sink
	One- and two-family dwellings	1 per dwelling unit		1 per dwelling unit	1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling units[f]
	Storage (see Subsections 403.2 and 403.4)	1 per 100		1 per 100	(see Section 411)	1 per 1,000	1 service sink

a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *EPCOT Building Code*.

b. Fixtures located in adjacent buildings under the ownership or control of the church shall be made available during periods when the church is occupied.

c. Toilet facilities for employees shall be separate from facilities for inmates or patients.

d. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient rooms shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.

e. For day nurseries, a maximum of one bathtub shall be required.

f. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.

g. See Definition in Chapter 2.