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EPCOT BUILDING CODES
2017 Supplement to the 2015 Edition
Code Change Submittals
Effective Date March 1, 2017

BUILDING

BS17 - 01

Proponent: Kenny Locke, Chief Technical Inspector

Chapter 2
Definitions

FIRE PARTITION. A vertical assembly of materials designed to restrict the spread of fire in which openings are protected.

SMOKE BARRIER. A continuous membrane, or a membrane with discontinuities created by protected openings, where such membrane is designed and constructed to restrict the movement of smoke.

BS17 - 02

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION 303
PLANS AND SPECIFICATIONS

303.1 Plans and Specifications Required.
(c) Unless specifically exempted by the Building Official, buildings and/or structures, alterations, repairs or improvements, replacements and additions with a valuation of $25,000 or more ~~as specified herein~~except as noted in paragraphs 1 and 2 below; or where the finished work is designed for public occupancy, the plans and specifications shall be prepared and approved by, and shall bear the seal, signature and date of, a professional engineer or registered architect either of whom shall be registered in the State of Florida.

1. Any specialized mechanical, electrical, or plumbing document which includes a medical gas, oxygen, steam, vacuum, toxic air filtration, halon, or fire detection and alarm system which costs more than $5,000.

2. Fire sprinkler documents which includes a fire sprinkler system which contains 50 or more sprinkler heads. Personnel as authorized by Chapter 633 *Florida Statutes*, may design a fire sprinkler system of 49 or fewer heads and may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition or deletion of not more than 49 heads, notwithstanding the size of the existing fire sprinkler system.

BS17 - 03

Proponent: Jonathan Cantwell, Fire Protection Engineer

503.6 Ceiling Heights.
(a) In all occupancies~~, except Group D,~~ ceilings of rooms used for human occupancy and all exitways shall have a clear height of not less than 7 feet 6 inches measured to the finished floor and lowest projection from the ceiling and shall comply with the *EPCOT Accessibility Code for Building Construction*. ~~[See Subsection 509.2(b).]~~

Exceptions:

1) Parking garages and mezzanines may have a minimum ceiling height of 7.0 feet above the finished floor.
2) In Group R, kitchens, bathrooms and toilet rooms, storage rooms and laundry rooms may have a minimum ceiling height of 7.0 feet above the finished floor.
3) For areas with sloped ceiling, the prescribed ceiling height for the rooms is required in one-half of the area thereof. Any portion of the room measuring less than 5 feet from the finished floor to the ceiling shall not be included in any computation of the minimum area thereof.

~~1)~~4) For one- and two-family dwellings, beams or girders spaced not less than 4 feet on center shall be permitted to project not more than 6 feet below the required height.

BS17- 04

Proponent: Jonathan Cantwell, Fire Protection Engineer

503.12 Fire Protection and Special Systems.

(a) A complete automatic sprinkler system shall be installed in locations as specified in Subsection 715.4.

(b) Every building greater than 400 square feet not provided with automatic sprinkler protection throughout shall be provided with approved product of combustion detectors located in accordance with EPCOT Standard 7-20. Each detector shall be connected to an AC power source and shall be connected to a central monitored station, if available. If a central monitored station is not available, an outside audible alarm shall be installed subject to approval by the Building Official. Every building in which sleeping areas are provided shall have product of combustion detectors located in accordance with Subsection 513.4 and EPCOT Standard 7-20.

(c) A fire alarm detection and evacuation system in accordance with NFPA 72 shall be installed in all occupancies.

Exception: A fire alarm detection and evacuation system is not required in Group A-7, R-3, S-1, S-4, S-5, S-6 and S-7 occupancies, temporary occupancies less than 300 occupants, construction trailers for the duration of the construction project, and manufactured buildings less than 3,200 square feet.

(d) Portable fire extinguishers shall be provided in all occupancies, including temporary structures, in accordance with NFPA 10.

Exception: S-6 Occupancies.

(e) Where required by occupancy, design or other provisions of this Code, the following systems and services shall be installed:

1. Automatic sprinkler systems, ~~fire extinguishers,~~ fire alarms, standpipes, water supply and hose connections shall be installed as required in Section 715.

2. Air-conditioning systems, chimneys, flues, vents and heat-producing equipment shall be designed as specified in the *EPCOT Mechanical Code*, and the applicable requirements of the *EPCOT Plumbing Code* and the *EPCOT Fuel Gas Code*.

3. Service of hazardous utilities shall be as specified by Subsection 708.3.

4. Every building shall have an approved outside gas shutoff valve.

5. Electrical installations shall be as specified in the *EPCOT Electrical Code*.

6. Elevators, escalators, dumbwaiters, manlifts and transporting assemblies shall be installed, tested, inspected, maintained and operated in accordance with the requirements of EPCOT Standard 5-1.

7. Except where prohibited, the storage of flammable materials shall comply with the requirements of EPCOT Standards 5-4, 5-5 and 5-6.

8. Blower and exhaust systems, where required, shall be installed as specified in EPCOT Standard 5-7.

BS17 - 05

Proponent: Jonathan Cantwell, Fire Protection Engineer

508.2 Enclosure of Exits and Vertical Openings.
(a) Exits shall be enclosed as required in Chapter 8.

(b) Other vertical openings shall be enclosed as specified in Table 6.2 and Section 703.

~~**Exception:** A shaft enclosure is not required for automobile ramps in open and enclosed parking garages constructed in accordance with Section 508.5 and other structures with a minimum 50% openness to the exterior on all sides.~~

BS17 - 06

Proponent: Jonathan Cantwell, Fire Protection Engineer

508.5 Open Parking Garages.
(a) Except where specific provisions are made in the following sections, other requirements for Group B shall apply in open parking garages.

(b) An open parking garage is a structure of Type I, II, III or IV construction more than one tier high when at least 50 percent of the perimeter is open, and when the structure is used exclusively for parking or storing passenger motor vehicles (see Table 5.3).

1. At least 50 percent of the clear height between floors shall be open to the atmosphere for the full length of at least two exterior walls, excluding required stair and elevator walls and structural columns.

Where a skin structure or exterior façade uses perforated or slotted openings applied to the required clear area, the skin or façade must be a minimum of 40% open to contribute any amount to the overall openness

calculation. The skin structure or façade shall be set out a minimum of 18 inches from the exterior wall surface.

2. The distance from any point on any floor level to an open exterior wall facing on a street, or to other permanently maintained open space at least 20 feet in width extending full width to a street, shall not exceed 200 feet.

3. When such structures are within 10 feet of a common property or building line, they shall be provided with an enclosure wall along the line of not less than 1-hour fire resistance without openings therein, except door openings meeting the requirements of Subsection 704.3 shall be permitted.

4. All floor and roof areas providing for the parking or movement of automobiles shall be provided with pedestrian guardrails in accordance with Subsection 503.11 at all exterior and interior vertical openings when the vertical distance to the ground or surface directly below exceeds 3 feet. Such parking areas shall also be provided with exterior or interior walls or impact guardrails, except at pedestrian or vehicular accesses, capable of withstanding an impact of not less than 150 pounds per lineal foot applied at 18 inches above the floor. Each floor of such structure shall have wheel guards not less than 4 inches in height above the floor with a clear passage of 3 feet between the wheel guard and edge of structure.

(c) A shaft enclosure is not required for automobile ramps in open parking garages constructed in accordance with this Subsection.

(c)**508.6 Enclosed Parking Garages.** Enclosed and basement public parking decks shall be provided with a mechanical ventilation system capable of providing six air changes per hour for each level in accordance with the *EPCOT Mechanical Code*. Enclosed garages shall be provided with automatic sprinklers in accordance with Section 715.

508.76 Prohibited Uses. The following uses are not permitted within parking garages.

(a) Automobile repair work.

(b) Loaded commercial trucks and similar vehicles.

(c) Partial or complete closing of required openings in exterior walls by tarpaulins or any other means.

(d) Dispensing of fuel.

508.87 Helistops.

BS17 - 07

Proponent: Jonathan Cantwell, Fire Protection Engineer

509.2 Construction, Height and Area.
(a) Buildings housing Group D, Division I occupancies, shall be of Type I or II construction. One-story buildings of Type III 1-hour, Type IV 1-hour or Type V 1-hour may be permitted when the floor area is not more than 3,900 square feet between separation walls of 2-hour fire resistive construction with all openings protected. The opening protectives shall have 1½-hour fire-resistive rating. Thresholds and expansion joint covers shall be flush with the floor.
(b)Ceiling heights in buildings housing Group D, Division 1 and 2 occupancies, shall be as required in EPCOT Standard 5-2.

(bc) Ceilings in corridors, patients' areas, nurses' stations, labor rooms, nourishment stations and dining areas shall be acoustically treated in accordance with the requirements of EPCOT Standard 5-2.

(cd) Where personal liberties are restrained within the building, the floors shall be of noncombustible material.

(de) Requirements for the control of sound transmission in Group D, Division 1 and 2 occupancies, shall be as specified in Table 5.4. Location of ductwork, fire blocking, electrical receptacles and other recessed wall attachments shall not interfere with the effectiveness of required sound insulation.

BS17 - 08

Proponent: Jonathan Cantwell, Fire Protection Engineer

511.7 High-Piled Stock.
(a) Buildings used or intended to be used for the storage of high-piled stock as defined in Paragraph (b) shall comply with the requirements of this Subsection.

(b) High-piled stock shall be combustible commodities or packaging materials that are placed in closely packed piles more than 125 feet high, that are stored on pallets or racks more than 12 feet high, or that are highly combustible materials placed in piles, stacks or racks more than 68 feet high.

Combustible commodities include the following classifications:
1. Manufactured combustible materials.

2. Wrapped or packaged in or protected by combustible materials.
3. Stored on combustible pallets or racks.

Highly combustible commodities include the following:
1. Rubber goods.
2. High-hazard foam plastic products.
3. Other materials that are subject to rapid combustion.

BS17 - 09

Proponent: Jonathan Cantwell, Fire Protection Engineer

602.2 Roofs. In buildings of Types I and II construction, noncombustible materials shall be protected in accordance with Table 6.2.

Exception: Fire protection of structural members shall not be required, including protection of roof framing and decking where every part of the roof construction is 20 feet or more above any floor or ceiling immediately below. Fire-retardant-treated wood members shall be allowed to be used for such unprotected members.

~~approved fire-retardant-treated wood or structural members of heavy timber sizes shall be permitted where there is 20 feet or more clear height above the upper floor or balcony to the roof.~~

BS17 - 10

Proponent: Jonathan Cantwell, Fire Protection Engineer

715.4 Where Automatic Sprinkler Systems are Required.
(c) Sprinkler protection shall be required on every floor of any enclosed exit stairway and in closets and bathrooms of Group R-1, R-2 and R-3 occupancies.

Exceptions:
1. ..
2.…
3.…
4.…
5…
6. Open parking garages meeting the requirements of 508.5.

BS17 - 11

Proponent: Jonathan Cantwell, Fire Protection Engineer

~~7~~**19.5 Enclosure of Atriums**. ~~Enclosures shall not be required for atriums in buildings when the top of atrium openings at each story are equipped with a draft curtain. The draft curtain shall enclose the perimeter of the unenclosed openings and shall extend from the ceiling downward at least 12 inches on all sides. An automatic sprinkler system shall be installed around the perimeter of the opening and to within 2 feet of the draft curtain. The distance between sprinkler heads shall not be more than 6 feet center to center. The protection described in this Paragraph shall not be considered as an occupancy separation.~~
~~Exceptions:~~
~~1. The adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium; however, such spaces shall be included when computing the volume of the atrium.~~
~~2. Closely spaced sprinklers and draftstops are not required around large openings such as those found in atrium buildings and similar structures where all adjoining levels and spaces are protected by automatic sprinklers in accordance with this Code and NFPA 13, and where the openings have all horizontal dimensions between opposite edges of 20 feet or greater and an area of 1,000 square feet or greater.~~
Atrium spaces shall be separated from adjacent spaces by 1-hour fire–resistive construction.

Exceptions:
1. A glass wall forming a smoke partition where automatic sprinklers are spaced 6 feet or less along both sides of the separation wall, or on the room side only if there is not a walkway on the atrium side, and between 4 inches and 12 inches away from the glass and designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction. The glass shall be installed in a gasketed frame so that the framing system deflects without breaking (loading) the glass before the sprinkler system operates. Where glass doors are provided in the glass wall, they shall be either self-closing or automatic-closing.

2. A glass-block wall assembly in accordance with EPCOT Standard 1006.-2.301.6 and having a ¾-hour fire protection rating.

3. The adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium where such spaces are accounted for in the design of the smoke control system.

BS17 - 12

Proponent: Kenny Locke, Chief Technical Inspector

803.1 Number of Means of Egress.
~~(~~j) ~~Except in Group R-3 occupancies, every boiler room, and every room containing an incinerator or liquefied petroleum gas or liquid fuel-fired equipment, shall have access to at least two means of egress, one of which may be a ladder. (See Subsection 503.17.)~~ Two exit access doorways are required in boiler, incinerator and furnace rooms where the area is over 500 square feet and any fuel-fired equipment exceeds 400,000 British thermal units (Btu) input capacity. Where two exit access doorways are required, one is permitted to be a fixed ladder or an alternating tread device. Exit access doorways shall be separated by a horizontal distance equal to one-half the length of the maximum overall diagonal dimension of the room. (See Subsection 503.17.)

BS17 - 13

Proponent: Jonathan Cantwell, Fire Protection Engineer

804.8 Change in Floor Level at Doors. Regardless of the occupant load, there shall be a floor or landing on each side of an exit or exit access door. The floor or landing shall be at the same elevation on each side of the doorway, and the length and width of the landing shall be at least equal to the width of the doorway it serves. Thresholds for doorways required to be accessible shall comply with Subsection 503.9.
1….
2….
3….
4….
5. Exterior doors providing roof access to normally unoccupied roofs may have a threshold not exceeding 7 inches in height.

BS17 - 14

Proponent: Alta Polanco, Plans Examiner

804.11 Fire Doors in Heater and Equipment Rooms. See Subsection ~~503.17(e).~~503.18(e).

BS17 - 15

Proponent: Jonathan Cantwell, Fire Protection Engineer

806.12 Stairway Construction, Exterior. Exterior exit stairways shall not be used as an element of a required means of egress for Group D occupancies. For occupancies in other than Group D, exterior exit ramps and stairways shall be permitted as an element of a required means of egress for buildings not exceeding six stories above grade plane or having occupied floors more than 75 feet above the lowest level of fire department vehicle access.

Exterior exit ramps and stairways serving as an element of a required means of egress shall be open on at least one side. An open side shall have a minimum of 35 square feet of aggregate open area adjacent to each floor level and the level of each intermediate landing shall be not less than 50 percent open, whichever is greater. The required open area shall be located not less than 42 inches above the adjacent floor or landing level.

(a) Exterior stairways shall be constructed as required in Chapter 6 ~~of noncombustible materials~~, except that in Type ~~II buildings of not more than three stories and in Type III,~~ IV, V and VI buildings, stairways may be of wood of not less than 2-inch nominal thickness.

(b) Exterior stairways shall be protected as required for exterior walls where there is exposure to adjacent structures or to property lines.

(c) Exterior stairways shall not project into an area where openings are required to be protected.

(d) The walls and soffits of enclosed usable space under exterior stairs shall be protected by 1-hour fire-resistance-rated construction or the fire-resistive rating of the stair enclosure, whichever is greater. Access to the enclosed usable space shall not be directly from within the stair enclosure.

(e) Exterior stairways shall be arranged to avoid any impediments to their use by persons having a fear of high places. Exterior stairways more than 36 feet above the finished ground level, other than previously approved existing stairs, shall be provided with an opaque visual obstruction not less than 48 inches in height.

BS17 - 16

Proponent: Jonathan Cantwell, Fire Protection Engineer

808.3 Discharge Areas. A horizontal exit shall lead to a floor area having capacity for an occupant load not less than the occupant load served by such exit. The area into which the horizontal exit leads shall be provided with exits other than additional horizontal exits, as required by Section 803. The capacity shall be determined by allocating 3 square feet of net clear floor area for each occupant. ~~ambulatory occupant and 20 square feet for each nonambulatory occupant. The area into which the horizontal exit leads shall be provided with exits other~~

~~than additional horizontal exits, as required by Section 803.~~

Exception: The net floor area allowable per occupant shall be as follows for the indicated occupancies:

1. Six square feet per occupant for occupancies in Group D-1.

2. Fifteen square feet per occupant for ambulatory occupancies in Group D-3.

3. Thirty square feet per occupant for nonambulatory occupancies in Group D-2.

B17 – 17

Proponent: Jonathan Cantwell, Fire Protection Engineer

New Section

518 Special Construction

518.1 Children's Play Structures. Children's play structures installed inside all occupancies covered by this Code shall comply with the following:

(a) Materials. Children's play structures shall be constructed of noncombustible materials or of combustible materials that comply with the following:

1. Fire-retardant-treated wood.

2. Light-transmitting plastics complying with Section 1008.

3. Foam plastics (including the pipe foam used in soft-contained play equipment structures) having a maximum heat-release rate not greater than 100 kilowatts when tested in accordance with UL 1975.

4. Aluminum composite material (ACM) meeting the requirements of Class 1 interior finish in accordance with Section 711 when tested as an assembly in the maximum thickness intended for use.

5. Textiles and films complying with the flame propagation performance criteria contained in NFPA 701.

6. Plastic materials used to construct rigid components of soft-contained play equipment structures (such as tubes, windows, panels, junction boxes, pipes, slides and decks) exhibiting a peak rate of heat release not exceeding 400 kW/m2 when tested in accordance with ASTM E1354 at an incident heat flux of 50 kW/m2 in the horizontal orientation at a thickness of 6 mm.

7. Ball pool balls, used in soft-contained play equipment structures, having a maximum heat-release rate not greater than 100 kilowatts when tested in accordance with UL 1975. The minimum specimen test size shall be 36 inches by 36 inches by an average of 21 inches deep, and the balls shall be held in a box constructed of galvanized steel poultry netting wire mesh.

8. Foam plastics shall be covered by a fabric, coating or film meeting the flame propagation performance criteria of NFPA 701.

9. The floor covering placed under the children's playground structure shall exhibit a Class 1 interior floor finish classification, as described in Section 711, when tested in accordance with NFPA 253.

(b) Fire Protection. Children's play structures shall be provided with the same level of approved fire suppression and detection devices required for other structures in the same occupancy.

(c) Separation. Children's play structures shall have a horizontal separation from building walls, partitions and from elements of the means of egress of not less than 5 feet. Children's playground structures shall have a horizontal separation from other children's play structures of not less than 20 feet.

(d) Area Limits. Children's play structures shall not exceed 300 square feet in area, unless a special investigation has demonstrated adequate fire safety.

ASTM D1929-1996 (2001 e1) (Note: change in Referenced Standard.)

BS17 - 18

Proponent: Jonathan Cantwell, Fire Protection Engineer

5-1.401.13 Escalator and Moving Walks. The e~~E~~xterior of trusses shall be enclosed with ~~a 1-hour fire-rated material.~~ noncombustible materials.

5-1.401.13.1 Escalator Guardrails. Escalators shall be provided with guardrails that comply with ~~Section~~ Subsection 503.11.

Fire Prevention

FPS17 - 01

Proponent: Jonathan Cantwell, Fire Protection Engineer

SECTION 1418.1
1418.1 Fire Alarm Detection and Evacuation Systems. A fire alarm detection and evacuation system in accordance with NFPA 72 shall be installed in all occupancies.

Exception: A fire alarm detection and evacuation system is not required in Group A-7, R-3, S-1, S-4, S-5, S-6 and S-7 occupancies, temporary occupancies less than 300 occupants, construction trailers for the duration of the construction project, and manufactured buildings less than 3,200 square feet.

MECHANICAL

MS17 - 01

Proponent: Kenny Locke, Chief Technical Inspector

Chapter 2
Definitions

AIR. All air supplied to mechanical equipment for combustion, ventilation, cooling, etc. Standard air is air at standard temperature and pressure, namely ~~60~~70°F and 29.92 inches of mercury.

AIR DISTRIBUTION SYSTEM. Any system of ducts, plenums and air-handling equipment that circulates air within a space or spaces and includes systems made up of one or more air-handling units.

CEILING RADIATION DAMPER. A listed device installed in a ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly to limit automatically the radiative heat transfer through an air inlet/outlet opening.

ENVIRONMENTAL AIR. Air that is conveyed to or from occupied areas through ducts which are not part of the heating or air-conditioning system, such as ventilation for human usage, domestic kitchen range exhaust, bathroom exhaust, domestic clothes dryer exhaust and parking garage exhaust.

~~**IDLH (IMMEDIATELY DANGEROUS TO LIFE OR HEALTH).** The maximum concentration of refrigerant from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects.~~

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH). The concentration of airborne contaminants that poses a threat of death, immediate or delayed permanent adverse health effects, or effects that could prevent escape from such an environment. This contaminant concentration level is established by the National Institute of Occupational Safety and Health (NIOSH) based on both toxicity and flammability. It is generally expressed in parts per million by volume (ppm v/v) or milligrams per cubic meter (mg/m3).

INTERLOCK. A device actuated by another device with which it is directly associated, to govern succeeding operations of the same or allied devices. A circuit in which a given action cannot occur until after one or more other actions have taken place.

OCCUPANCY. The purpose for which a building, or portion thereof, is utilized or occupied.

~~**PLENUM.** Air compartment or chamber to which one or more ducts are connected and form part of an air distribution system.~~

PLENUM. An enclosed portion of the building structure, other than an occupiable space being conditioned, that is designed to allow air movement, and thereby serve as part of an air distribution system.

TOILET ROOM. A room containing a water closet and, frequently, a lavatory, but not a bathtub, shower, spa or similar bathing fixture.

MS17 - 02

Proponent: Kenny Locke, Chief Technical Inspector

302.2 Manufacturer's Operating Instructions. Permanent factory-applied instructions for ignition, operation and shutdown shall accompany the equipment. The manufacturer's operating instructions shall remain attached to the appliance in a position to be easily read during the life of the appliance.

302.3 Listed Equipment. When the requirements for listed appliances and their accessories are different from the requirements of this Section, such listed appliances shall be installed in accordance with the conditions specified in their listing. Listed appliances and their accessories, installed or used not according to the

conditions specified in their listing and all appliances not listed, shall conform to the requirements of this Section.

302.~~3~~ 4 National Standards. Unless otherwise specified in this Chapter, air-conditioning equipment shall comply with the following standards:
(a) ANSI/ASHRAE 15, Safety Code for Mechanical Refrigeration.
(b) ASHRAE Handbook, HVAC Systems and Equipment.
(c) NFPA 90A, Installation of Air-Conditioning and Ventilating Systems.
(d) NFPA 90B, Installation of Warm-Air Heating and Air-Conditioning Systems.
(e) NFPA 214, Water-Cooling Towers.

302.~~4~~ 5 Electric Duct Heater Safety Controls. Electric duct heaters shall be listed; bear the seal or mark of an approved testing agency; and be equipped with an approved automatic reset, air outlet temperature limit control that will limit the outlet air temperature to not greater than 200°F. The electric elements of the heater shall be equipped with fusible links or a manual reset temperature limit control that will prevent outlet air temperature in excess of 250°F.

302.~~5~~ 6 Equipment Installed Outdoors. Heating and cooling equipment, when installed outdoors, shall be listed for such use in accordance with UL 1955.

~~**SECTION 303**~~
~~**INSTALLATION OF HVAC**~~
~~**AND REFRIGERATION EQUIPMENT**~~

~~**303.1 Listed Equipment.** When the requirements for listed appliances and their accessories are different from the requirements of this Section, such listed appliances shall be installed in accordance with the conditions specified in their listing. Listed appliances and their accessories, installed or used not according to the conditions specified in their listing and all appliances not listed, shall conform to the requirements of this Section.~~

~~303.2~~302.7 Accessibility for Service.

Note: Renumber remaining sections moving all of 303 into 302.

New Section 303

SECTION 303
NFPA 96

303.1 General. Commercial kitchen ventilation hoods, ducts and exhaust equipment shall comply with NFPA 96 and this Code. Where conflicts between NFPA 96 and this Code exist, the most stringent standard shall be applied as determined by the Building Official.

MS17 - 03

Proponent: Kenny Locke, Chief Technical Inspector

505.1 Termination. Exhaust outlets for ducts conveying noxious gases, flammable vapors, corrosive vapors, and ducts serving commercial food-cooking and processing equipment, shall terminate outside the building; shall be located 10 feet from any adjacent building, parking area, adjacent property line, window, door or air intake opening; and shall be located a minimum of 10 feet above the adjoining grade level. Every exhaust outlet that is located above the roof shall terminate a minimum of 40 inches above the roof surface. The airflow from exhaust outlets conveying grease-laden vapors shall be in a vertical direction away from the roof surface in accordance with NFPA 96. Where this is not possible, a metal pan a minimum of 1 inch deep shall be provided on the roof surface to catch grease residue. Horizontal exhaust outlets conveying grease-laden vapors shall comply with NFPA 96.

MS17 - 04

Proponent: Kenny Locke, Chief Technical Inspector

~~609.2 Ceiling Penetration. Ducts penetrating the ceiling of a fire-resistant roof/ceiling or floor/ceiling assembly shall be protected by methods complying with the design of the assembly, or by ceiling dampers specifically designed and listed for this type of service.~~

609.2 Membrane Penetrations. Ducts and air transfer openings constructed of approved materials, in accordance with Chapter 6, that penetrate the ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with one of the following:

1. A shaft enclosure in accordance with the *EPCOT Building Code*.

2. A listed ceiling radiation damper installed at the ceiling line where a duct penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly. Damper shall comply with Subsection 609.2.1.

3. A listed ceiling radiation damper installed at the ceiling line where a diffuser with no duct attached penetrates the ceiling of a fire-resistance-rated floor/ ceiling or

roof/ceiling assembly. Damper shall comply with Subsection 609.2.1.

609.2.1 Ceiling Radiation Dampers. Ceiling radiation dampers shall be tested as part of a fire-resistance-rated floor/ceiling or roof/ceiling assembly in accordance with ASTM E 119 or UL 263. Ceiling radiation dampers shall be installed in accordance with the details listed in the fire-resistance-rated assembly and the manufacturer's installation instructions and the listing. Ceiling radiation dampers are not required where either of the following applies:

1. Tests in accordance with ASTM E 119 or UL 263 have shown that ceiling radiation dampers are not necessary to maintain the fire-resistance rating of the assembly.

2. Where exhaust duct penetrations are located within the cavity of a wall and do not pass through another dwelling unit or tenant space. Duct shall be a minimum 26 ga. Sheet steel and penetrations of top/bottom plates are properly fire caulked. (Provide penetration details on plans.)

MS17 - 05

Proponent: Kenny Locke, Chief Technical Inspector

New Section

609.7 Corridors. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a corridor enclosure required to have fire rated doors of 20 minutes or greater in accordance with the *EPCOT Building Code*. Smoke dampers and smoke damper actuation methods shall comply with Subsection 609.7.1.

Exceptions:

1. Smoke dampers are not required in corridor penetrations where the penetration is part of an approved smoke control system installed in accordance with the *EPCOT Building Code* and smoke dampers are not necessary for the operation and control of the system.

2. Smoke dampers are not required in smoke barrier penetrations where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.

3. Smoke dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch in thickness and there are no openings serving the corridor.

609.7.1 Smoke Dampers. The smoke damper shall close upon actuation of a listed smoke detector or detectors installed in accordance with the *EPCOT Building Code*, NFPA 72 and one of the following methods, as applicable:

1. Where a damper is installed within a duct, a smoke detector shall be installed in the duct within 5 feet of the damper with no air outlets or inlets between the detector and the damper. The detector shall be listed for the air velocity, temperature and humidity anticipated at the point where it is installed.

2. Where a damper is installed above smoke barrier doors in a smoke barrier, a spot-type detector listed for releasing service shall be installed on either side of the smoke barrier door opening.

3. Where a damper is installed within an unducted opening in a wall, a spot-type detector listed for releasing service shall be installed within 5 feet horizontally of the damper.

4. Where a damper is installed in a corridor wall, the damper shall be permitted to be controlled by a smoke detection system installed in the corridor.

5. Where a total-coverage smoke detector system is provided within all areas served by an HVAC system, dampers shall be permitted to be controlled by the smoke detection system.

MS17 - 06

Proponent: Kenny Locke, Chief Technical Inspector

New Section

609.8 Through Penetrations. In occupancies other than Groups D-1 and D-2, a duct constructed of approved materials in accordance with Chapter 6 that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection provided that a listed fire damper is installed at the floor line.

Exception: A duct is permitted to penetrate three floors or less without a fire damper at each floor provided it meets all of the following requirements.

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel having a minimum thickness of 0.0187 inch (No. 26 gage).

2. The duct shall open into only one dwelling unit or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.

3. The duct shall not exceed 4-inch nominal diameter and the total area of such ducts shall not exceed 100 square inches for any 100 square feet of the floor area.

4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste when subjected to ASTM E 119 or UL 263 time-temperature conditions under a minimum positive pressure differential of 0.01 inch of water at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated.

5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a listed ceiling radiation damper installed in accordance with Section 609.2.

PLUMBING

PS17 - 01

Proponent: Tom Allen

SECTION 301
GENERAL

301.12 Conflicts. In instances where conflicts occur between this Code and the manufacturer's installation instructions, the more restrictive provisions shall apply unless the more restrictive requirements violate or void the listing of the product.

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Proponent: Tom Allen

SECTION 802
INDIRECT WASTES

New Section

802.1.6 Domestic Dishwashing Machines. Domestic dishwashing machines shall discharge indirectly through an air gap or air break into a waste receptor in accordance with Subsection 802.2, or discharge into a wye-branch fitting on the tailpiece of the kitchen sink or the dishwasher connection of a food waste grinder. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder shall connect to a deck-mounted air gap or the waste line shall rise and be securely fastened to the underside of the sink rim or counter.

802.1.7 Commercial Dishwashing Machines. The discharge from a commercial dishwashing machine shall be through an air gap or air break into a waste receptor in accordance with Subsection 802.2.

802.1.8 Food Utensils, Dishes, Pots and Pans Sinks. Sinks, in other than dwelling units, used for the washing, rinsing or sanitizing of utensils, dishes, pots, pans or service ware used in the preparation, serving or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.