

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
CHAPTER 1 – SCOPE AND ADMINISTRATION		
<p>[A] 101.2 Scope. The provisions of this code shall apply to the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing systems within this jurisdiction. This code shall also regulate nonflammable medical gas, inhalation anesthetic, vacuum piping, nonmedical oxygen systems and sanitary and condensate vacuum collection systems. The installation of fuel gas distribution piping and equipment, fuel-gas-fired water heaters and water heater venting systems shall be regulated by the International Fuel Gas Code. Provisions in the appendices shall not apply unless specifically adopted.</p> <p>A. Nothing in this Part or any provision adopted pursuant to this Part shall prohibit the Department of Health and Hospitals from the following:</p> <p>(1) Regulating stored water temperatures through enforcement of the Sanitary Code.</p> <p>(2) Regulating medical gas and medical vacuum systems.</p>	<p>There seems to be a conflict between what is stated in this Section of the IPC and what is stated in Act 836 of 2014 (HB 1048 of 2014).</p> <p>§101.2 of the IPC seems to indicate that the IPC will regulate medical gases and medical vacuum systems?</p> <p>Particularly, the Act itself states: R.S. 40:1730.28.3. Authority of the Department of Health and Hospitals A. Nothing in this Part or any provision adopted pursuant to this Part shall prohibit the Department of Health and Hospitals from the following: (1) Regulating stored water temperatures through enforcement of the Sanitary Code. (2) Regulating medical gas and medical vacuum systems.</p>	PASSED
<p>[A] 102.2 Existing installations. Plumbing systems lawfully in existence at the time of the adoption of this code shall be permitted to have their use and maintenance continued if the use, maintenance or repair is in accordance with the original design and no hazard to life, health or property is created by such plumbing system.</p>	<p>Who will be the person to determine that there is no hazard to health created by allowing an existing plumbing installation to remain as installed? If the facility in question is a permitted or licensed facility by DHH, how will a non-DHH person know what the original design was when they have never regulated it before now?</p> <p>What happens when a state-licensed registered sanitarian or an OPH engineer does an inspection of some facility and knows of potential health hazards associated with improper plumbing. Does he or she just close their eyes and make like the problem does not exist thereby potentially placing the public's health in jeopardy? Would not the sanitarian or engineer be placing their license in jeopardy if they were aware of a potential health hazard and ignored it because the legislature now has apparently deemed it someone else's job?</p>	NO ACTION; need revision language
<p>[A] 105.2 Alternative materials, methods and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been <i>approved</i>. An alternative material or method of construction shall be <i>approved</i> where the code official finds that the proposed alternative material, method or equipment complies with the intent of the provisions of this code and is at least the equivalent of that prescribed in this code.</p>	<p>Who will be making these reviews? Will they be on the local level only, or will a product be reviewed for statewide approval by the LSUCCC? Recommend review of all alternate materials by the LSUCCC for approval or denial on the statewide level in order to prevent inconsistent enforcement across the state. This will also prevent unnecessary and redundant approval requests of plumbing products by all manufacturers.</p>	NO ACTION; LSUCCC cannot do the reviews. Reviews will be done by building officials.

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CHAPTER 2 - DEFINITIONS		
AIR BREAK (Drainage System). A piping arrangement in which a drain from a fixture, appliance or device discharges indirectly into another fixture, receptacle or interceptor at a point below the flood level rim and above the trap seal. An unobstructed horizontal distance of free atmosphere between the outside of the indirect waste pipe and the inside of the receiving sink or other receptor must exist so as to allow a back-flow of sewage to spill over the flood-level rim of the receiving sink or other receptor to prevent such back-flow from reaching the fixture, device, appliance or apparatus served by the indirect waste pipe.	Recommend revision.	PASSED
BACKFLOW. Pressure created by any means in the water distribution system, which by being in excess of the pressure in the water supply mains causes a potential backflow condition. The undesirable reversal of flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply system and/or water distribution system from any source or sources other than its intended source. Backpressure, low head. A pressure less than or equal to 4.33 psi (29.88 kPa) or the pressure exerted by a 10-foot (3048 mm) column of water. Backsiphonage. The backflow of potentially contaminated water into the potable water system as a result of the pressure in the potable water system falling below atmospheric pressure of the plumbing fixtures, pools, tanks or vats connected to the potable water distribution piping. A reversal of the normal direction of flow in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure. Back-Pressure Backflow—a condition which occurs when the downstream pressure is higher than the supply pressure causing a reversal of the normal direction of flow.	Recommend amending the definitions of “Backflow”, “Back-Siphonage”, and “Back-Pressure” to be more consistent with national Backflow Organizations such as IAPMO and USC.	TABLED; All Definitions were TABLED to be covered in the corresponding Chapters.
CHAPTER 3 – GENERAL REGULATIONS		
303.5 Water Piping Quality. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free. 2. Exception. The lead free requirement above shall not apply to: a. leaded joints necessary for the repair of existing cast iron pipes; b. fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as	Recommend inserting the reduced lead requirements from ACT 362 into SECTION 3 – MATERIALS, of the IPC. ACT 362 was signed by Gov. Bobby Jindal on June 29, 2011 with and effective date of January 1 st , 2013 (1 year earlier than the Federal Law).	PASSED

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manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or, c. toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.		
312.5 Water supply system test. Upon completion of a section of or the entire water supply system, the system, or portion completed, shall be tested and proved tight under a water pressure not less than 1.5 times the working pressure of the system, but not less 140 psi; or, for piping systems other than plastic, by an air test of not less than 50 psi (344 kPa). This pressure shall be held for not less than 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 107.	Recommend raising the minimum pressure of the water supply system test. Raising the minimum pressure of the test will help to reveal any potential manufacturing or installation flaws. Finding such flaws would help prevent expensive property damage and/or health issues such as mold growth inside of walls due to leaky plumbing components. FROM PART XIV: Test of Water Distribution System. Upon the rough-in completion of a section of or the entire water distribution system [e.g., before closing the wall in and, for example, after capping and crimping a copper piping system, after plugging and sealing approved plastic piping such as CPVC, PEX, etc.], it shall be tested and proved tight under a water pressure not less than 200 psi (1379 kPa) for at least 15 minutes. The water used for tests shall be obtained from a potable source of supply.	PASSED; PTC comprised on this.
314.3 Plenum No floor drain or other plumbing fixture except electric water heaters shall be installed in a room containing air handling machinery when such room is used as a plenum. When rooms are used as a plenum, equipment drains shall be conveyed through an indirect waste receptor located outside such rooms or other approved point of disposal.	Recommend adding the following language into SECTION 314 in order to eliminate the potential for sewer gases from entering a buildings duct work (prevent SARS and other health risks).	PASSED; Note: motion made to overturn this and reference 802.3 - TIED
SECTION 316 ALTERNATIVE ENGINEERED DESIGN 316.1 Alternative engineered design. The design, documentation, inspection, testing and approval of an <i>alternative engineered design</i> plumbing system shall comply with Sections 316.1.1 through 316.1.6 . 316.1.1 Design criteria. ... 316.1.2 Submittal. The registered design professional engineer shall indicate on the permit application that the plumbing system is an <i>alternative engineered design</i> . The permit and permanent permit records shall indicate that an <i>alternative engineered design</i> was part of the <i>approved</i> installation.	Recommend that Section 316.1.2 be amended to require that these ("engineered") plumbing systems require the seal, signature and date of a LA licensed professional <u>engineer</u> .	PASSED
SECTION 316 ALTERNATIVE ENGINEERED DESIGN 316.1 Alternative engineered design. The design, documentation, inspection, testing and approval of an <i>alternative</i>	Recommend adding the Third Party Notification requirement into this section which will ensure that potential future owners are aware that there is an alternative engineered designed	TIED

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<i>engineered design</i> plumbing system shall comply with Sections 316.1.1 through 316.1.6 .	plumbing system on the premises which may require special consideration if being renovated or modified.	
CHAPTER 4 – FIXTURES, FAUCETS AND FIXTURE FITTINGS		
418.4 HANDWASH SINKS. 1. Dedicated handwash sinks shall be located to permit convenient use by all employees in food processing, food preparation, and other food handling areas. 2. Each commercial body art (tattoo) facility shall provide a hand washing sink to be used solely for hand washing in body art procedure area for the exclusive use of the operator. A separate instrument sink shall also be provided for the sole purpose of cleaning instruments and equipment prior to sterilization. 3. A hand washing sink may not be used for purposes other than hand washing. 4. Sinks used for food preparation or for washing and sanitizing of equipment and utensils shall not be used for hand washing. 418.5 MANUAL WAREWASHING, SINK REQUIREMENTS. 1. A sink with at least three compartments constructed of smooth, impervious non-corrosive material such as stainless steel or high density food grade polymer plastic shall be provided in slaughter rooms, packing rooms, retail food establishments, and other food handling areas for manual washing, rinsing and sanitizing equipment and utensils except where there are no utensils or equipment to wash, rinse and sanitize; <i>i.e.</i> , such as in a facility with only prepackaged foods.	Recommend adding SINKS requirements into the appropriate Section(s) of the IPC which will address some of our concerns pertaining to facilities that we currently permit under the sanitary code. This will ensure that adequate handwash and warewash sinks are provided at the necessary facilities in order to maintain sanitary conditions.	PASSED
403.3.7 Location of toilet facilities in educational buildings. For primary schools, and other special types of institutions with classrooms, for children through 12 years of age, separate boys' and girls' toilet room doors shall not be further than 200 feet from any classroom doors. For secondary schools, and other special types of institutions with classrooms, for persons of secondary school age, separate boys' and girls' toilet room doors shall not be further than 400 feet from any classroom door. In multi-storied buildings, there shall be boys' and girls' toilet rooms on each floor, having the number of plumbing fixtures as specified in Table 403.1 of this Code for the classroom population of that floor. When new educational buildings are added to an existing campus, the restroom facilities and drinking fountains located in the existing building(s) may be used to serve the occupants of the new educational building(s) only when all of the following provisions are met: i) Covered walkways consisting of a roof designed to protect the students and faculty from precipitation having a minimum width of 6 feet and located above a slip-resistant concrete or other	Recommend adding a new section for educational occupancy types which will ensure that toilets are located at convenient locations within schools. Many times designers will try to save square footage and cut down on plumbing costs by grouping all of the required fixtures in a single men's and a single women's restroom. This can often time lead to a location that is clear across the school for many students which can prevent students from using the restroom when needed and/or cause accidents. Proper access to restroom facilities is necessary to protect the health of the students. The inability to use a restroom when needed can cause bladder/kidney infections, constipation, bowel obstructions, and other health-related issues. Some people suffer from temporary or permanent conditions (e.g. irritable bowel syndrome, diarrhea, leaky bladder, etc.) that make finding an available bathroom an imperative. In short, restroom fixture requirements are directly related to public	PASSED

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<p>acceptable hard surfaces leading to and from the restrooms shall be provided whenever children or faculty have to walk outside to access the toilet room;</p> <p>ii) The path of travel from the classroom door to the toilet room doors (boys' or girls') does not exceed the applicable distance specified in this section; and,</p> <p>iii) The number of occupants of the new building does not cause an increase in the school population that would trigger the need for more fixtures per Table 403.1 (Minimum Number of Required Plumbing Fixtures).</p>	<p>health, the promotion of which is the very purpose behind the Sanitary Code.</p>	
<p>403.6 Other fixture requirements for licensed pre-schools, day care centers, and residential facilities. Additional plumbing fixtures shall be provided in day care centers and residential facilities as required by this Section.</p> <p>403.6.1 Food preparation. The food preparation area in pre-schools, day cares, and residential facilities shall meet the following requirements. The food preparation, storage and handling where six or less individuals are cared for shall provide a two-compartment sink and an approved domestic type dishwasher. Where the number of individuals cared for is between 7 and 15, either a three-compartment sink, or an approved domestic or commercial type dishwashing machine and a two-compartment sink with hot and cold running water shall be provided. Where 16 or more individuals are cared for, a three-compartment sink must be provided. If a dishwasher is also utilized in these instances (16 or more individuals), it must be a commercial type and it shall be in addition to the required three-compartment sink. One laundry tray, service sink, or curbed cleaning facility with floor drain shall also be provided on the premises for cleaning of mops and mop water disposal (for facilities caring for 16 or more individuals).</p> <p>403.6.2 Caring for children between 0 and 4 years of age. In child day care facilities, a hand washing sink shall be in or adjacent to each diaper changing area. In addition, one extra laundry tray, service sink, or similar fixture is required to clean and sanitize toilet training potties immediately after each use. Such fixture shall be dedicated solely for this purpose and shall not be in the food preparation/storage, utensil washing, or dining areas. Training potties shall not be counted as toilets in determining the minimum fixture requirements of Table 403.1. Fixtures shall be size appropriate for the age of the children being cared for (toilets 11 inches maximum height and lavatories 22 inches maximum height), or if</p>	<p>Recommend amending the IPC as necessary to incorporate the specialized plumbing requirements for day care centers and residential facilities. These requirements are currently located in LAC 51:XXI.</p>	<p>PASSED</p>

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<p>standard size fixtures are used, safe, cleanable step aids shall be provided.</p> <p>Adult Day Care Center—any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of 10 or more people 18 years and older, not related to the caregiver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the person's home.</p> <p>Child Day Care Center—any place or facility, operated by any person for the primary purpose of providing care, supervision and guidance of seven or more children under the age of 18, not related to the care giver and unaccompanied by parent or guardian, on a regular basis, for a total of at least 20 hours in a continuous seven day week in a place other than the children's home. A day care center that remains open for more than 20 hours in a continuous seven day week, and in which no individual child remains for more than 24 hours in one continuous stay shall be known as a full-time day care center.</p> <p>Day Care Centers—includes adult and child day care centers.</p> <p>Infant—any child under the age of 12 months.</p> <p>Preschool—any child less than five years of age.</p> <p>Residential Facility—any place, facility, or home operated by any person who receives therein four or more people who are not related to such person for supervision, care, lodging and maintenance with or without transfer of custody. This shall include, but not be limited to group homes, community homes, maternity homes, juvenile detention centers, emergency shelters, halfway homes and schools for the mentally retarded.</p>		
<p>403.2 Separate facilities.</p> <p>Where plumbing fixtures are required, separate facilities shall be provided for each sex.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Separate facilities shall not be required for dwelling units and sleeping units. 2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer. 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer. 	<p>Recommend addressing the following Revised Statute regarding the allowance of a unisex restroom in certain retail food establishments. It appears that Section 403.2 of the IPC would be the appropriate location where the verbiage should be added.</p> <p>R.S. 40:4 §4. Sanitary Code (1) (c) In order to protect the public health, the state health officer shall promulgate rules and regulations relative to retail food establishments. Such rules and regulations shall not require a retail food establishment which serves alcoholic beverages and consists of five hundred square feet or less of usable floor area which is accessible to customers to have more than one restroom facility consisting of one water closet and one lavatory. Such limit of the required number of restroom facilities and fixtures shall</p>	<p>PASSED</p>

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	not apply to retail food establishments which contain wet bars. For the purposes of this Section, "wet bar" shall be defined as a bar within a food service establishment at which patrons may walk up to, order, and receive an alcoholic beverage directly from a bartender.	
<p>410.5 Minimum Required Separation from Contamination Drinking fountain fixtures shall provide a minimum of 18 inches of separation from its water outlet (spigot) to any source of contamination. Combination sink/drinking fountain units shall provide a minimum of 18 inches between the drinking fountain water outlet (spigot) and the nearest outside rim of the sink bowl [or other source(s) of contamination]. a. Exception. This 18 inch minimum separation may only be reduced by the use of a vertical shield made of a smooth, easily cleanable surface that is attached flush with the top surface of the unit and extends to a distance at least 18 inches in height above the drinking fountain water outlet (spigot) level. b. Prohibited Fixture. Combination sink/drinking fountain units which share the same sink bowl are prohibited except in individual prison cells.</p>	Need to revise Chapter 4 of the IPC as necessary to ensure these drinking fountain requirements are addressed.	PASSED
<p>403.3.3 Location of toilet facilities in occupancies other than malls and educational buildings. In occupancies other than covered and open mall buildings, and educational buildings, the required <i>public</i> and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).</p>	Need to revise this section since 403.3.7 Location of toilet facilities in educational buildings was added.	PASSED
<p>420.2 Water closets for public or employee toilet facilities. Water closet bowls for <i>public</i> or employee toilet facilities shall be of the elongated type. 420.3 Water closet seats. Water closets shall be equipped with seats of smooth, nonabsorbent material. All seats of water closets provided for <i>public</i> or employee toilet facilities shall be of the hinged open-front type. Integral water closet seats shall be of the same material as the fixture. Water closet seats shall be sized for the water closet bowl type.</p> <p>CHAPTER 2 DEFINITIONS PUBLIC OR PUBLIC UTILIZATION. In the classification of plumbing fixtures, "<i>public</i>" applies to fixtures in general toilet rooms of schools, gymnasiums, hotels, hotel/motel rooms, airports, bus and railroad stations, public buildings, bars, public comfort stations, office buildings, stadiums, stores, restaurants, patient rooms and other installations where a number of fixtures are installed so that their utilization is similarly unrestricted.</p>	<p>Need to revise IPC as necessary to include the following requirement:</p> <p>LAC 51:XIV.415.N.6. Seats. Water closets shall be equipped with seats of smooth nonabsorbent material. All seats of water closets provided for public use including, but not limited to, hotel and motel guest rooms and patient rooms of hospitals and nursing homes shall be of the open-front type. Integral water closet seats shall be of the same material as the fixture. The seat contour shall be the same contour as the water closet.</p>	PASSED

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422.11 Handwashing Facilities. Medical facilities, including doctor's offices and clinics, shall be provided with hand washing facilities within each patient examination and treatment room. The hand wash facility shall be provided with hot and cold water delivered via a mixing faucet.	IPC 422 (Health Care Fixtures and Equipment) does not require a hand washing facility in patient examination and treatment rooms of medical facilities, including doctor's offices and clinics, as does LSPC (LAC 51:XIV.1303.H)	PASSED
IPC 401.2 prohibits all types of trough urinals.	LSPC 51:XIV.401.B prohibits floor-type trough urinals. LSPC 51:XIV.415.L.4 and LAC 51:XVIII allows wall-hung trough urinals in stadiums, arenas, jails, prisons, and other institutions of detention or incarceration if installed in accordance with the requirements of Part XIV.	NO ACTION; majority agreed with IPC.
403.3.1 Access. The route to the <i>public</i> toilet facilities required by Section 403.3 shall not pass through kitchens, storage rooms or closets. Except as otherwise allowed elsewhere in this code, access to the required facilities shall be from within the building through direct openings or corridors from the area or areas they are intended to serve. or from the exterior of the building. All routes shall comply with the accessibility requirements of the <i>International Building Code</i> . The public shall have access to the required toilet facilities at all times that the building is occupied.	IPC 403.3.1 states, in part, that "Access to the required facilities shall be from within the building <u>or from the exterior of the building.</u> " It does not mention that exterior access would also require at least overhead protection so that customers would not have to walk in the rain to go to the restroom.	FAILED (3y/4n)
403.3.4 Location of toilet facilities in malls. In covered and open mall buildings, the required <i>public</i> and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 300 feet (91 440 mm). In mall buildings, the required facilities shall be based on total square footage within a covered mall building or within the perimeter line of an open mall building, and facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum travel distance to central toilet facilities in mall buildings shall be measured from the main entrance of any store or tenant space. In mall buildings, where employees' toilet facilities are not provided in the individual store, the maximum travel distance shall be measured from the employees' work area of the store or tenant space. When an individual tenancy, rental unit or other usable area within a covered mall building is separated from the central toilet facilities by walls or partitions without common access openings (i.e., openings through interior walls or partitions that allow access to the toilet facilities) it shall be considered independently from the remainder of the building and shall be provided with separate toilet facilities in accordance with this Chapter regardless of the type of occupancy. The minimum number of required plumbing fixtures shall be installed in each individual tenancy, rental unit or other usable area within an open mall unless covered walkways are provided along the entire path of travel from each	An equivalent to the LSPC XIV.411.A.5 concerning the use of "common toilet facilities" in commercial buildings of multiple tenants does not appear to be included in the IPC. Specifically, what is missing is "Tenancies, rental units or other usable areas with a building when separated from the required toilet facilities - <i>common toilet facilities</i> - by walls or partitions without common access openings (<i>i.e.</i> , openings through interior walls or partitions that allow access to the toilet facilities) shall be considered independently from the remainder of the building and shall be provide with separate facilities ...". As stated in item 4.) above, it would appear that a separated tenancy, rental unit, or other usable area not having a common access opening within the building would be allowed to still utilize the common toilet facilities for the building even if the patron had to walk outside of the separated tenancy, rental unit or other usable area in order to access the common toilet facility.	FAILED (3y/4n)

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individual tenancy, rental unit or other usable area to the central toilet facilities serving said spaces and the path of travel does not exceed 300 feet (91 440 mm).		
IPC 403.3.2 requires that toilet rooms not open directly into a room used for the preparation of food for service to the public.	LSPC 51:XIV.3111.A.2 allows a toilet room to open directly into a room used for food preparation if the toilet room is completely enclosed and provided with a tight-fitting and self-closing door. This is especially true for employee toilet rooms located in the kitchen area. Such employee toilet rooms are not normally provided with a vestibule to separate the toilet room door from the entry door into the kitchen itself.	NO ACTION; majority agreed with IPC.
IPC 421.4 calls for Suction Fittings on Whirlpool Bathtubs to conform to ASME A112.19.7/CSA B45.10.	LSPC XIV.415.O.6 calls for suction fittings to conform to ASME A 112.19.8 or APSP 16.	NO ACTION; Under Technical Review
SECTION 412 FLOOR AND TRENCH DRAINS Floor drains are required in public toilet rooms and in the recess room for sterilizers in a medical facility. Floor drains are not required in the toilet rooms serving hotel/motel guest rooms or patient rooms of hospitals and nursing homes. Floor drains are not permitted in general food storage areas, for example, a food storage closet or room.	It does not appear that the IPC requires a floor drain in public toilet rooms as per LSPC XIV.415E.2.a. With such a drain, hopefully, any overflows in the toilet room will be contained within the toilet room itself. It does not appear that the IPC requires a floor drain in the recess room for sterilizers in a medical facility as does LSPC XIV.415.E.2.c and LSPC XIV.1305.C.2.a. No mention is made that floor drains are not required in the toilet rooms serving hotel/motel guest rooms or patient rooms of hospitals and nursing homes as specifically stated under LSPC XIV.415.E.2.c.i.(a). No mention is made that floor drains are not permitted in general food storage areas, for example, a food storage closet or room as specified under LSPC XIV.415.E.3.c. It appears that it only mentions the need for an air gap or air break relative to walk-in coolers and freezers but no mention is made of general food storage closets or rooms which could contain food items that could be subject to contamination in a backflow incident.	PASSED
425.2 Flushometer valves and tanks. Flushometer valves and tanks shall comply with ASSE 1037 or CSA B125.3. Vacuum breakers on flushometer valves shall conform to the performance requirements of ASSE 1001 or CSA B64.1.1. Flushometer valves shall be equipped with an approved vacuum breaker. The vacuum breaker shall	The way that the IPC reads, this AVB would have to be located at least 6" above the overflow rim of the bowl. Requiring an AVB for a flushometer to always be a minimum of 6" above the bowl may always cause problems with the ADA hand rail height.	PASSED

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<p>be installed on the discharge side of the flushing valve with the critical level at least 4 inches (102 mm) above the overflow rim of the bowl. Access shall be provided to vacuum breakers.</p>	<p>LSPC 609.C. Where Required. The following are certain instances wherein backflow prevention devices are required. This list shall not be construed as all instances where a backflow prevention device is required.</p> <p>1. Flushometer. Flushometer valves shall be equipped with an approved vacuum breaker. The vacuum breaker shall be installed on the discharge side of the flushing valve with the critical level at least 4 inches (102 mm) above the overflow rim of the bowl. Flushometer tanks shall be provided with an approved backflow prevention device installed above the flood-level rim of the fixture.</p>	
CHAPTER 5 – WATER HEATERS		
<p>504.7 Required pan. Where a storage tank-type water heater or a hot water storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a galvanized steel pan having a material thickness of not less than 0.0236-inch (0.6010mm) (No. 24 gage) 0.0276-inch (0.7 mm), or other pans approved for such use.</p> <p>a. Exception. Electric water heaters may rest in a high impact plastic pan of at least 1/16-inch (1.6 mm) thickness.</p> <p>504.7.1 Pan size and drain. The pan shall be not less than 4 1/2 inches (38 mm) in depth and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a diameter of not less than 3/4-inch (19 mm) 1-inch (25.4 mm). Piping for safety pan drains shall be of those materials listed in Table 605.4.</p> <p>504.7.2 Pan drain termination. The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor or floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches (610 mm) above the adjacent ground surface.</p>	<p>Section 504.7 of the IPC allows a lighter-weight material for the safety pan than does LA State Plumbing Code (Part XIV). In addition, the IPC allows a minimum 3/4 -inch pan drain whereas Part XIV requires a minimum 1-inch drain. Recommend increasing the pan thickness and minimum pan drain size to that of Part XIV.</p> <p>LAC 51.XIV.511.H. Safety Pans and Relief Valve Waste. Safety pans and relief valve waste piping shall comply with the following.</p> <p>1. When water heaters or hot water storage tanks are installed in remote locations such as suspended ceiling spaces or in attics, the tank or heater shall rest in a galvanized steel or other metal pan of equal corrosive resistance having a thickness at least equal to 0.0276-inch (0.7 mm) galvanized sheet steel.</p> <p>a. Exception. Electric water heaters may rest in a high impact plastic pan of at least 1/16-inch (1.6 mm) thickness.</p> <p>2. Safety pans shall be no less than 1 1/2 inches (38mm) deep and shall be of sufficient size and shape to receive all drippings or condensate from the tank or heater. The pan shall be drained by a pipe no less than 1-inch (25.4 mm) diameter.</p>	<p>PASSED</p>
<p>Certification. Solar water heating systems shall be certified to the Solar Rating and Certification Corporation's (SRCC) OG-300 document, 2010 edition (Operating Guidelines and Minimum Standards for Certifying Solar Water Heating Systems) by the SRCC themselves or by listing agencies [such as the International Association of Plumbing and Mechanical Officials (IAPMO)] which are currently accredited as meeting the ISO/IEC Guide 65 by the</p>	<p>The International Codes do not appear to require Solar Water Heating systems to be certified to OG-300. Recommend inserting the certification requirements from LAC 51:XIV.513 into Section 601.2 and 612.2 (new) of the IPC, Section 1401.4 of the IMC, and Section 2301.1.1 (new) of the IRC.</p>	<p>NO ACTION; PTC is not allowed to amend the IMC; this will be presented</p>

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
American National Standards Institute (ANSI) or other IAF MLA signatory accreditation bodies.	LAC 51:XIV §513. Solar Water Heating Systems 513.C.1. Certification. Solar water heating systems shall be certified to the Solar Rating and Certification Corporation's (SRCC) OG-300 document, 2010 edition (Operating Guidelines and Minimum Standards for Certifying Solar Water Heating Systems) by the SRCC themselves or by listing agencies [such as the International Association of Plumbing and Mechanical Officials (IAPMO)] which are currently accredited as meeting the ISO/IEC Guide 65 by the American National Standards Institute (ANSI) or other IAF MLA signatory accreditation bodies.	to the LSUCCC Technical Committee.
Safety. Any solar water heating system capable of providing hot water in excess of 140 F (60 C) shall be equipped with a listed tempering valve or temperature limiting device to limit the temperature of water delivered to the domestic hot water system to a maximum of 140 F (60 C).	Recommend inserting the requirements from LSPC 513.C.4 into the appropriate locations within the IPC, IMC, and IRC. Water temperatures generated via solar collectors can be unpredictable. Therefore it is important to be able to accurately limit the water temperature when it is being used for domestic purposes. Although certain fixtures (i.e., showers, tubs, tub/shower combo units, public lavatories) are required to have mixing valves, these mixing valves may not be able to properly compensate for the extremely high temperatures that can be generated by solar water heating systems. In addition, other fixtures such as kitchen sinks and private lavatories are not required to have mixing valves which further highlights the importance of this temperature limiting requirement. LAC 51.XIV.513.C.4. Safety. Any solar water heating system capable of providing hot water in excess of 140 F (60 C) shall be equipped with a listed tempering valve or temperature limiting device to limit the temperature of water delivered to the domestic hot water system to a maximum of 140 F (60 C).	NO ACTION; PTC is not allowed to amend the IMC; this will be presented to the LSUCCC Technical Committee.
Solar Water Heating System Design Criteria. Solar water heating system design criteria shall be as follows. 1. Overall System Design. All solar water heating systems shall be of the closed loop type, utilizing an indirect circulation system. Direct circulation systems are prohibited. a. Solar water heating systems shall have flow directions indicated on system components and piping or shall have flow directions indicated on a diagrammatic representation of the system as installed, permanently affixed to the system hardware in a readily accessible and visible location. b. The solar water heating system shall be valved to provide for shut-off from the service water supply without interrupting normal cold water service to the residence (see §509.A of this code and apply).	Recommend inserting these requirements into the appropriate locations within the IPC, IMC, and IRC. Part XIV only allows indirect circulation systems and specifically prohibits the use of direct systems. Direct systems run the potable water directly through the solar collector whereas indirect systems utilize a heat exchanger to transfer heat generated in the collector to the potable water. Water temperatures generated via solar collectors can be unpredictable. Therefore it is important to be able to accurately control the water temperature when it is being used for domestic purposes. Controlling the water temperature of a	NO ACTION; PTC is not allowed to amend the IMC; this will be presented to the LSUCCC Technical Committee.

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	<p>direct system is more difficult which can lead to issues with scalding, stagnation, bacteria growth, legionella, etc. Recommend prohibiting direct systems altogether by inserting the following requirements into the appropriate section of the IPC, IMC, and IRC.</p> <p><u>LAC 51:XIV.513.D. Solar Water Heating System Design Criteria.</u> Solar water heating system design criteria shall be as follows.</p> <p>1. Overall System Design. All solar water heating systems shall be of the closed loop type, utilizing an indirect circulation system. Direct circulation systems are prohibited.</p> <p>a. Solar water heating systems shall have flow directions indicated on system components and piping or shall have flow directions indicated on a diagrammatic representation of the system as installed, permanently affixed to the system hardware in a readily accessible and visible location.</p> <p>b. The solar water heating system shall be valved to provide for shut-off from the service water supply without interrupting normal cold water service to the residence (see §509.A of this code and apply).</p>	
<p>Auxiliary Heating System. Auxiliary water heating equipment shall be provided such that the combined system (i.e., solar water heating system and the auxiliary water heating equipment) will provide the same degree of reliability and performance as a conventional water heating system.</p> <p>a. Auxiliary (non-solar) water heating equipment shall be compatible with the solar system heat output, temperatures, flow rates and fluid types. Auxiliary water heating equipment shall be listed and labeled by a recognized third party listing agency.</p> <p>b. The piping system shall be provided with valves which can be closed for the purpose of isolating the solar hot water heating system from the auxiliary water heater, thereby permitting operation of the auxiliary water heating system when the solar water heating system is inoperative or being serviced.</p> <p>c. Auxiliary water heaters shall meet all applicable requirements set forth in this Chapter.</p>	<p>Nothing in the International Codes requires the use of an auxiliary water heating system to ensure the ability to reliably control the domestic water temperature.</p> <p>Solar water heating systems are not a reliable as conventional water heating systems due to their dependence on environmental factors such as outdoor temperature, cloud cover, rain, etc. Just as it is important to be able to control the maximum temperature for scald preventions, it is equally important to have the means to control the minimum temperature due to concerns with bacteria growth, legionella, amoeba, etc. In order to ensure systems can reliably control the minimum water temperatures we recommend inserting the following requirements into the appropriate sections of the IPC, IMC, and IRC.</p> <p><u>LAC 51.XIV.513.9. Auxiliary Heating System.</u> Auxiliary water heating equipment shall be provided such that the combined system (i.e., solar water heating system and the auxiliary water heating equipment) will provide the same degree of reliability and performance as a conventional water heating system.</p> <p>a. Auxiliary (non-solar) water heating equipment shall be compatible with the solar system heat output, temperatures, flow</p>	<p>NO ACTION; PTC is not allowed to amend the IMC; this will be presented to the LSUCCC Technical Committee.</p>

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
	<p>rates and fluid types. Auxiliary water heating equipment shall be listed and labeled by a recognized third party listing agency.</p> <p>b. The piping system shall be provided with valves which can be closed for the purpose of isolating the solar hot water heating system from the auxiliary water heater, thereby permitting operation of the auxiliary water heating system when the solar water heating system is inoperative or being serviced.</p> <p>c. Auxiliary water heaters shall meet all applicable requirements set forth in this Chapter.</p>	
<p>Testing. Testing of solar water heating systems and its components shall be performed in accordance with the following.</p> <p>1. Closed Loop System. Closed loop or other type pressure systems shall be tested at one and one-half times maximum designed operating pressure. All systems shall withstand the test without leaking for a period of not less than 15 minutes.</p> <p>2. Storage Tanks. Storage tanks associated with solar water heating systems shall be tested in accordance with the following.</p> <p>a. Pressure type storage tanks shall be tested as prescribed in §513.G.1 of this code above.</p> <p>b. Non-pressure type storage tanks shall be tested by filling it with water for a period of 24 hours prior to inspection and shall withstand the test without leaking. No tank or portion thereof shall be covered or concealed prior to approval.</p> <p>H. Abandonment. Every abandoned solar water heating system or part thereof shall be physically disconnected from any remaining part of the plumbing system, drained, and plugged or capped in an approved manner.</p>	<p>Nothing in the International Codes appears to require a post installation test of a solar water heating system or for abandoned solar water heating systems to be properly disconnected from a plumbing system.</p> <p>Recommend adding the following requirements into the appropriate sections of the IPC, IMC, and IRC.</p> <p><u>LAC 51.XIV.513.G. Testing.</u> Testing of solar water heating systems and its components shall be performed in accordance with the following.</p> <p>1. Closed Loop System. Closed loop or other type pressure systems shall be tested at one and one-half times maximum designed operating pressure. All systems shall withstand the test without leaking for a period of not less than 15 minutes.</p> <p>2. Storage Tanks. Storage tanks associated with solar water heating systems shall be tested in accordance with the following.</p> <p>a. Pressure type storage tanks shall be tested as prescribed in §513.G.1 of this code above.</p> <p>b. Non-pressure type storage tanks shall be tested by filling it with water for a period of 24 hours prior to inspection and shall withstand the test without leaking. No tank or portion thereof shall be covered or concealed prior to approval.</p> <p>H. Abandonment. Every abandoned solar water heating system or part thereof shall be physically disconnected from any remaining part of the plumbing system, drained, and plugged or capped in an approved manner.</p>	<p>NO ACTION; PTC is not allowed to amend the IMC; this will be presented to the LSUCCC Technical Committee.</p>

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
CHAPTER 6 – WATER SUPPLY AND DISTRIBUTION		
<p>608.8 Identification of nonpotable water. Where nonpotable water systems are installed, the piping conveying the nonpotable water shall be identified either by color marking or metal tags in accordance with Sections 608.8.1 through 608.8.34. All nonpotable water outlets such as hose connections, open ended pipes, and faucets shall be identified at the point of use for each outlet with the words, "Nonpotable—not safe for drinking." The words shall be indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and in colors in contrast to the background on which they are applied in black lettering on a yellow background. This identification shall be done in accordance with ASME A 13.1. Besides the caution statement, the contents (i.e., the specific nonpotable liquid) may also be identified on the legend.</p> <p>608.8.2 Color. The color of the pipe identification shall be discernable and consistent throughout the building. The color purple shall be used to identify reclaimed, rain and gray water distribution systems. Piping and outlets conveying nonpotable water shall be adequately and durably identified by a distinctive yellow-colored paint so that it is readily distinguished from piping carrying potable water. In those instances when it is not feasible to paint the entire length of the nonpotable water pipe, each nonpotable pipe shall be minimally identified with the words “caution: nonpotable water, - do not drink” in black lettering on a band of yellow-colored paint as background to designate that the liquid being conveyed therein is nonpotable. Such identification shall not be concealed by pipe insulation and when insulated the insulation shall be painted the same color as is required for the pipe. Maintenance of all identification shall be the responsibility of the owner. This identification shall be done in accordance with ASME A 13.1. The minimum size of the black letters and the length of the yellow-colored paint field shall conform to the requirements in Section 608.8.3 of this code.</p> <p>608.8.2.1 Reclaimed water. Where reclaimed water is piped or used, piping and outlets conveying this particular type of nonpotable water shall be adequately and durably identified by a distinctive purple-colored paint (or, in lieu of paint, the purple color may be manufactured integral to the pipe) so that it is readily distinguished from piping carrying potable water. The color standard and color tolerances of the</p>	<p>Amend Section 608.8 – 608.8.4, including adding two new Sections, of the 2012 IPC in order to address the requirements within RS 40:4.12 and the color coding requirements for reclaimed water. Also provides clarification as to the required color coding of piping conveying nonpotable water.</p>	<p>TIED</p>

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
required purple-color should meet the American Public Works Association's Uniform Color Code, i.e., Pantone Matching System 253, which is further specified in ANSI Z535.1-2006 (R2011) and identified in the ANSI Z535-2011 color chart.).		
<p>608.8.4 Exception.</p> <p>Overall Exception to this Section (§608.8 of this code).</p> <p>Pursuant to R.S. 40:4.12, industrial-type facilities listed therein shall not be required to comply with this section (§608.8 of this code) provided that such facilities have a potable water distribution identification plan in conformity with the requirements of R.S. 40:4.12. The required formal cross-connection control survey of the facility referenced in R.S. 40:4.12 shall be performed by an individual holding a valid cross-connection control surveyor certificate issued under the requirements of ASSE 5120, or other individuals holding a surveyor certificate from a nationally recognized backflow certification organization approved by the state health officer.</p>		PASSED
<p>SECTION P2909 IDENTIFICATION OF NONPOTABLE WATER</p> <p>P2909.1 Identification of nonpotable water.</p> <p>Where nonpotable water systems are installed, the piping conveying the nonpotable water shall be identified either by color marking or metal tags in accordance with this Section. All nonpotable water outlets such as hose connections, open ended pipes, and faucets shall be identified at the point of use for each outlet with the words, "Nonpotable—not safe for drinking.&rdquo; The words shall be indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and in black lettering on a yellow background. This identification shall be done in accordance with ASME A 13.1. Besides the caution statement, the contents (i.e., the specific nonpotable liquid) may also be identified on the legend.</p> <p>P2909.2 Information.</p> <p>Pipe identification shall include the contents of the piping system and an arrow indicating the direction of flow. Hazardous piping systems shall also contain information addressing the nature of the hazard. Pipe identification shall be repeated at intervals not exceeding 25 feet (7620 mm) and at each point where the piping passes through a wall, floor or roof. Lettering shall be readily observable within the room or space where the piping is located.</p> <p>P2909.3 Color.</p> <p>Piping and outlets conveying nonpotable water shall be adequately and durably</p>	Create new Section P2909 in the 2012 IRC to cover the nonpotable identification requirements.	TIED

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION																		
<p>identified by a distinctive yellow-colored paint so that it is readily distinguished from piping carrying potable water. In those instances when it is not feasible to paint the entire length of the nonpotable water pipe, each nonpotable pipe shall be minimally identified with the words “caution: nonpotable water, - do not drink” in black lettering on a band of yellow-colored paint as background to designate that the liquid being conveyed therein is nonpotable. Such identification shall not be concealed by pipe insulation and when insulated the insulation shall be painted the same color as is required for the pipe. Maintenance of all identification shall be the responsibility of the owner. This identification shall be done in accordance with ASME A 13.1. The minimum size of the black letters and the length of the yellow-colored paint field shall conform to the requirements in Section 608.8.3 of this code.</p> <p>P2909.4 Reclaimed water. Where reclaimed water is piped or used, piping and outlets conveying this particular type of nonpotable water shall be adequately and durably identified by a distinctive purple-colored paint (or, in lieu of paint, the purple color may be manufactured integral to the pipe) so that it is readily distinguished from piping carrying potable water. The color standard and color tolerances of the required purple-color should meet the American Public Works Association’s Uniform Color Code, i.e., Pantone Matching System 253, which is further specified in ANSI Z535.1-2006 (R2011) and identified in the ANSI Z535-2011 color chart.).</p> <p>P2909.4. The size of the background color field and lettering shall comply with Table 608.8.3.</p> <p>TABLE P2909.4 SIZE OF PIPE IDENTIFICATION</p> <table border="1"> <thead> <tr> <th>PIPE DIAMETER (inches)</th><th>LENGTH BACKGROUND COLOR FIELD (inches)</th><th>SIZE OF LETTERS (inches)</th></tr> </thead> <tbody> <tr> <td>$\frac{3}{4}$ to $1\frac{1}{4}$</td><td>8</td><td>0.5</td></tr> <tr> <td>$1\frac{1}{2}$ to 2</td><td>8</td><td>0.75</td></tr> <tr> <td>$2\frac{1}{2}$ to 6</td><td>12</td><td>1.25</td></tr> <tr> <td>8 to 10</td><td>24</td><td>2.5</td></tr> <tr> <td>over 10</td><td>32</td><td>3.5</td></tr> </tbody> </table>	PIPE DIAMETER (inches)	LENGTH BACKGROUND COLOR FIELD (inches)	SIZE OF LETTERS (inches)	$\frac{3}{4}$ to $1\frac{1}{4}$	8	0.5	$1\frac{1}{2}$ to 2	8	0.75	$2\frac{1}{2}$ to 6	12	1.25	8 to 10	24	2.5	over 10	32	3.5		
PIPE DIAMETER (inches)	LENGTH BACKGROUND COLOR FIELD (inches)	SIZE OF LETTERS (inches)																		
$\frac{3}{4}$ to $1\frac{1}{4}$	8	0.5																		
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$2\frac{1}{2}$ to 6	12	1.25																		
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over 10	32	3.5																		

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
For SI: 1 inch = 25.4 mm.		
<p>2012 IPC: FIXTURE SUPPLY. The water supply pipe connecting serving a fixture and which connects to a branch water supply pipe or directly to a main water supply pipe. A fixture supply pipe shall terminate not more than 30 inches (762 mm) from the point of connection to a fixture at which point an <i>approved</i> flexible water connector can be utilized to connect a fixture to a <i>fixture supply</i>.</p> <p>2012 IRC: FIXTURE SUPPLY. The water-supply pipe connecting serving a fixture or fixture fitting to a fixture branch and which connects to a branch water supply pipe or directly to a main water supply pipe. A fixture supply pipe shall terminate not more than 30 inches (762 mm) from the point of connection to a fixture at which point an <i>approved</i> flexible water connector can be utilized to connect a fixture to a <i>fixture supply</i>.</p>	Amend the definition of fixture supply in the 2012 IPC and IRC to minimize the confusion between a flexible fixture connector and a fixture supply.	TIED
<p>606.5.5 Low-pressure cutoff required on booster pumps. A low-pressure cutoff shall be installed on all booster pumps in a water pressure booster system to prevent creation of a vacuum or negative pressure on the suction side of the pump when a positive pressure of 4020 psi (68.94137.9 kPa) or less occurs on the suction side of the pump.</p>	Our code currently sets the level at 15 psi but the water design committee has proposed to change this to 20 psi to align the Louisiana minimum pressure requirement with industry best practices.	PASSED
<p>606.5.5 Low-pressure cutoff required on booster pumps. A low-pressure cutoff shall be installed on all booster pumps in a water pressure booster system to prevent creation of a vacuum or negative pressure on the suction side of the pump when a positive pressure of 4020 psi (68.94137.9 kPa) or less occurs on the suction side of the pump. In the case of stationary fire pumps whose source of water is a potable water system, in lieu of a low-pressure cutoff, a low-suction throttling valve shall be installed to sense the pressure in the water supply and automatically send a signal to a valve on the discharge side of the pump. This valve will not close all the way and it will not cutoff the fire pump, but it will modulate (open and close) to throttle back the discharge in an attempt to maintain a relatively constant pressure at the sensing location on the suction side of the pump. This allows the fire pump to keep sending water to the fire while the water supply pressure on the suction side of the pump recovers. Use of this valve protects against negative pressures being created in the potable water main when an uncontrolled fire pump is used. The valve body is to be located in between the pump discharge and discharge check valve with the sensing line connected to the suction side of the pump. The valve shall be set to prevent suction pressure from dropping below</p>	<p>Since the 2003 edition, NFPA 20 has permitted the use of low-suction throttling valves where the AHJ requires positive pressure to be maintained on the suction piping. The purpose of such valves is to help ensure that the pressure in the suction piping does not drop to a predetermined critical level due to the condition of the available water supply. For instance, where a municipal water main serves as the water supply for the fire protection system, the main might not be capable of supplying as much water as the fire pump is capable of drawing, especially when the pump is operating near its overload condition. The resulting pressure drop in the municipal main can cause backflow contamination, or in extreme cases a collapse of the main.</p> <p>Where a low suction throttling valve is required, NFPA 20 requires such throttling valves to be installed in the discharge piping between the pump and the discharge check valve. A sensing line connected to the suction piping controls the</p>	<p>TABLED</p> <p>Note: The PTC PASSED the change from 10 to 20 psi. The remaining language was Tabled for future discussion with input from the Office of State Fire Marshal</p>

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<p>20 psi (137.9 kPa). The owner of a building that is protected by an automatic sprinkler system shall submit plans and specifications to the Office of Louisiana State Fire Marshal in accordance with LRS 40:1574. This includes any repair, remodeling, addition, or other details of construction that affect the fire protection features of a structure including the installation of backflow preventers on water supply lines that serve existing fire sprinkler systems.</p>	<p>position of the throttling valve. When the suction pressure drops to a preset throttling pressure (typically 20 psi), the valve begins to close thereby limiting flow and maintaining the suction pressure to the preset level.</p>	
<p>605.2 Lead content of water supply pipe and fittings. Pipe and pipe fittings, including valves and faucets, utilized in the water supply system shall have a maximum of 8 percent lead content. Water Piping Quality. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free. Exception. The lead free requirement above shall not apply to: i. leaded joints necessary for the repair of existing cast iron pipes; ii. fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or, iii. toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.</p> <p>P2905.2 Lead content. Pipe and fittings used in the water supply system shall have lead content of not greater than 8 percent lead. Water Piping Quality. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any public water system or any plumbing in a residential or nonresidential facility providing water for human consumption shall be lead free. Exception. The lead free requirement above shall not apply to: i. leaded joints necessary for the repair of existing cast iron pipes; ii. fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or, iii. toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches</p>	<p>Recommend inserting the reduced lead requirements from ACT 362 into Section 605.2 of the IPC and P2905.2 of the IRC. ACT 362 was signed by Gov. Bobby Jindal on June 29, 2011 with and effective date of January 1st, 2013 (1 year earlier than the Federal Law).</p>	<p>PASSED</p>

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION										
in diameter or larger.												
<div>TABLE 604.5 MINIMUM SIZES OF FIXTURE WATER SUPPLY PIPES</div> <table><tr><th>FIXTURE</th><th>MINIMUM PIPE SIZE (inch)</th></tr><tr><td>Drinking fountain</td><td>3/8 1/2</td></tr><tr><td>Kitchen sink, Commercial</td><td>3/4</td></tr><tr><td>Lavatory</td><td>3/8 1/2</td></tr><tr><td>Water closet, flushometer tank</td><td>3/8 1/2</td></tr></table>	FIXTURE	MINIMUM PIPE SIZE (inch)	Drinking fountain	3/8 1/2	Kitchen sink, Commercial	3/4	Lavatory	3/8 1/2	Water closet, flushometer tank	3/8 1/2	Recommend increasing the minimum size of fixture supplies from 3/8 inch to 1/2 inch for drinking fountains, lavatories, and flushometer tank water closets in Table 604.5 of the IPC. Also, adding a new entry for commercial sinks and requiring a 3/4 inch supply line.	PASSED
FIXTURE	MINIMUM PIPE SIZE (inch)											
Drinking fountain	3/8 1/2											
Kitchen sink, Commercial	3/4											
Lavatory	3/8 1/2											
Water closet, flushometer tank	3/8 1/2											
<div>606.1 Location of full-open valves.</div> <div>Full-open valves shall be installed in the following locations:</div> <div><div>1. On the building water service pipe from the public water supply near the curb.</div><div>2. On the water distribution supply pipe at the entrance into the structure.</div><div>3. On the discharge side of every water meter.</div><div>4. On the base of every water riser pipe in occupancies other than multiple-family residential <i>occupancies</i> that are two stories or less in height and in one- and two-family residential <i>occupancies</i>.</div><div>5. On the top of every water down-feed pipe in <i>occupancies</i> other than one- and two-family residential <i>occupancies</i>.</div><div>6. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.</div><div>7. On the water supply pipe to a gravity or pressurized water tank.</div><div>8. On the water supply pipe to every water heater.</div><div>9. On each water supply branch line 1 1/2 inches or larger so as to isolate all fixtures and all pieces of equipment supplied by the branch line. The shutoff valve shall be installed in a labeled and accessible location as close to the connection to the supply main and/or riser as practical.</div></div> <div>When such shutoff valve is located in the service pipe outside the building, it shall be located and accessible in a manufactured, approved, valve box with a readily removable access cover which extends to grade(G) level. When drain valves are provided for the distribution piping or other portions of the water distribution system, such drains shall be above grade(G) or otherwise located to prevent the possibility of backflow into the piping system after the system has</div>	Amend the IPC as shown in the adjacent cell to ensure that shutoff valves are installed in the necessary locations to properly isolate sections of the plumbing system for any necessary future repairs, renovations, etc.	PASSED										

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<p>been drained.</p> <p>606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:</p> <ol style="list-style-type: none"> 1. On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential <i>occupancies</i>. Such vales shall permit each fixture to be shutoff without interfering with the water supply to any other fixtures, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar <i>occupancies</i>. In all buildings other than one-and two-family residential <i>occupancies</i>, shutoff valves shall be installed which permit the water supply to all fixtures and equipment in each separate room to be shut off without interference with the water supply to any other room or portion of the building or each individual fixture and piece of equipment shall have a shutoff valve which will permit each fixture and piece of equipment to be shut off without interfering with the water supply to other fixtures or equipment. 2. On the water supply pipe to each sillcock. 3. On the water supply pipe to each appliance or mechanical equipment. 		
<p>SECTION 603 WATER SERVICE</p> <p>603.2 Separation of water service and building sewer lines. Underground Water service pipe and the building drain or building sewer shall be horizontally separated by not less than 5 feet (1524 mm) of undisturbed or compacted earth.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. The required separation distance shall not apply where the bottom of the water service pipe within 5 feet (1524 mm) of the sewer is not less than 12 inches (305 mm) above the top of the highest point of the sewer and the sewer pipe materials conform to Table 702.3. 2. Water service pipe is permitted to be located in the same trench with a building drain or building sewer, provided such sewer is constructed of materials listed in Table 702.2 and the water service pipe is placed on a solid shelf excavated at one side of the common trench. The bottom of the water service pipe, at all points, shall be at least 12 inches (305 mm) above the top of the sewer line at its highest point. 3. Any underground water service pipe which must cross a pipe that conveys sewage (e.g., building drains, building sewers, and other piping conveying sewage) shall have a minimum vertical separation of 12 inches (305 mm) above the top of the sewer. The required separation distance shall not apply where a water service pipe crosses a sewer pipe, provided the water service pipe is shall be sleeved to a point not less than 5 feet (1524 mm) horizontally from the sewer 	<p>Recommend providing some additional language in Section 603.2 of the IPC and creating a new section in the IRC to help clarify the design requirements regarding the separation of water service piping and sewerage drainage systems.</p>	<p>PASSED</p>

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<p>pipe centerline on both sides of such crossing with pipe materials listed in Table 605.3, 702.2 or 702.3.</p> <p>P2910 SEPARATION OF WATER SERVICE FROM CONTAMINATION P2910.1 Separation of water service and sewer lines. Underground water service pipe and the <i>building drain</i> or <i>building sewer</i> shall be horizontally separated by not less than 5 feet (1524 mm) of undisturbed or compacted earth.</p> <p>Exceptions:</p> <ol style="list-style-type: none"> 1. The required separation distance shall not apply where the bottom of the water service pipe within 5 feet (1524 mm) of the <i>sewer</i> is not less than 12 inches (305 mm) above the top of the highest point of the <i>sewer</i> and the sewer pipe materials conform to Table P3002.2. 2. Water service pipe is permitted to be located in the same trench with a <i>building drain</i> or <i>building sewer</i>, provided such <i>sewer</i> is constructed of materials listed in Table P3002.1(2) and the water service pipe is placed on a solid shelf excavated at one side of the common trench. The bottom of the water service pipe, at all points, shall be at least 12 inches (305 mm) above the top of the sewer line at its highest point. 3. Any underground water service pipe which must cross a pipe that conveys sewage (e.g., building drains, building sewers, and other piping conveying sewage) shall have a minimum vertical separation of 12 inches (305 mm) above the top of the <i>sewer</i>. The water service pipe shall be sleeved to a point not less than 5 feet (1524 mm) horizontally from the <i>sewer</i> pipe centerline on both sides of such crossing with pipe materials listed in Table P2905.4, P3002.1(2) or P3002.2. 		
<p>603.3. Potable Water (Pressure) Lines Near Soil Absorption Trenches, Sand Filter Beds, Oxidation Ponds, and any Effluent Reduction Option (Effluent Reduction Fields, Rock Plant Filters, Spray Irrigation Systems, Overland Flow Systems, Mound Systems, or Subsurface Drip Disposal Systems). Underground potable water (pressure) lines shall not be located within 25 feet (7.6 m) of any soil absorption trenches, sand filter beds, oxidation ponds, or any effluent reduction option including, but not limited to effluent reduction fields, rock plant filters, spray irrigation systems (from the edge of the spray and its drainage), overland flow systems (from the discharge point and field of flow), mound systems, or subsurface drip disposal systems which have been installed for either the disposal of septic tank effluent or mechanical treatment plant effluent.</p>	<p>Recommend providing some additional language in Section 603.2 of the IPC and creating a new section in the IRC to help clarify the design requirements regarding the separation of water service piping and sewerage drainage systems. Also recommend expanding Section 603 of the IPC to better address potential contamination that can occur between water supply piping and other sources of contamination currently not contained in the IPC.</p>	<p>PASSED</p>

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<p>603.4. Potable Water (Pressure) Lines Near Septic Tanks, Mechanical Sewage Treatment Plants, and Pump Stations. Underground potable water (pressure) lines shall not be located within 10 feet (3.0 m) of any septic tank, mechanical sewage treatment plant, or sewage pump station.</p> <p>603.5. Potable Water (Pressure) Lines Near Seepage Pit, Cesspool, or Sanitary Pit Privy. Underground potable water (pressure) lines shall not be located within 50 feet (15.2m) of any seepage pit, cesspool, or sanitary pit privy.</p> <p>603.6. Reclaimed Water Lines. Reclaimed water lines shall be considered and treated as though they are sewerage lines and shall be installed in accord with the spacing requirements of this Section for the protection of potable water lines.</p> <p>603.7. Stop and Waste Valves and Devices. Combination stop and waste valves and cocks shall not be installed underground in a water service pipe, water supply system, or a water distribution system. Any fixture or device which incorporates a stop and waste feature is prohibited if the waste opening is underground or in any location that waste water or water-borne contaminants may enter the device or water supply from the ground or other source by reversal of flow.</p>		

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<p>P2910.2 Potable Water (Pressure) Lines Near Soil Absorption Trenches, Sand Filter Beds, Oxidation Ponds, and any Effluent Reduction Option (Effluent Reduction Fields, Rock Plant Filters, Spray Irrigation Systems, Overland Flow Systems, Mound Systems, or Subsurface Drip Disposal Systems). Underground potable water (pressure) lines shall not be located within 25 feet (7.6 m) of any soil absorption trenches, sand filter beds, oxidation ponds, or any effluent reduction option including, but not limited to effluent reduction fields, rock plant filters, spray irrigation systems (from the edge of the spray and its drainage), overland flow systems (from the discharge point and field of flow), mound systems, or subsurface drip disposal systems which have been installed for either the disposal of septic tank effluent or mechanical treatment plant effluent.</p> <p>P2910.3 Potable Water (Pressure) Lines Near Septic Tanks, Mechanical Sewage Treatment Plants, and Pump Stations. Underground potable water (pressure) lines shall not be located within 10 feet (3.0 m) of any septic tank, mechanical sewage treatment plant, or sewage pump station.</p> <p>P2910.4 Potable Water (Pressure) Lines Near Seepage Pit, Cesspool, or Sanitary Pit Privy. Underground potable water (pressure) lines shall not be located within 50 feet (15.2m) of any seepage pit, cesspool, or sanitary pit privy.</p> <p>P2910.5 Reclaimed Water Lines. Reclaimed water lines shall be considered and treated as though they are sewerage lines and shall be installed in accord with the spacing requirements of this Section for the protection of potable water lines.</p> <p>P2910.6 Stop and Waste Valves and Devices. Combination stop and waste valves and cocks shall not be installed underground in a water service pipe, water supply system, or a water distribution system. Any fixture or device which incorporates a stop and waste feature is prohibited if the waste opening is underground or in any location that waste water or water-borne contaminants may enter the device or water supply from the ground or other source by reversal of flow.</p>	<p>Recommend creating a new section in the IRC to help clarify the design requirements regarding the separation of water service piping and sewerage drainage systems. Also recommend expanding Section 603 of the IPC to better address potential contamination that can occur between water supply piping and other sources of contamination currently not contained in the IPC.</p>	<p>PASSED</p>

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION																
<p>605.3 Water service pipe. Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.3. Water service pipe or tubing, installed underground and outside of the structure, shall have a working pressure rating of not less than 160 psi (1100 kPa) at 73.4°F (23°C). Where the water pressure exceeds 160 psi (1100 kPa), piping material shall have a working pressure rating not less than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. All ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.</p> <p>TABLE 605.3 WATER SERVICE PIPE</p> <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i>, Type M copper is prohibited, M or WM)</td><td>ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447</td></tr></table> <p>TABLE 605.4 WATER DISTRIBUTION PIPE</p> <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i>, Type M copper is prohibited, M or WM)</td><td>ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447</td></tr></table> <p>TABLE P2905.4 WATER SERVICE PIPE</p> <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i>, Type M copper is prohibited, M or WM)</td><td>ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447</td></tr></table> <p>TABLE P2905.5 WATER DISTRIBUTION PIPE</p> <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i>, Type M copper is prohibited, M or WM)</td><td>ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447</td></tr></table>	MATERIAL	STANDARD	Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447	MATERIAL	STANDARD	Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447	MATERIAL	STANDARD	Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447	MATERIAL	STANDARD	Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447	<p>Recommend amending Table 605.3 and Table 605.4 of the IPC, and Tables P2905.4 and P2905.5 of the IRC to prohibit the use of Type M copper for water service and water distribution piping. Type M copper is thin-walled which often times develops leaks prematurely. In addition, because it is thin-walled, it is more easily damaged during installation and construction.</p>	<p>PASSED</p>
MATERIAL	STANDARD																	
Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447																	
MATERIAL	STANDARD																	
Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447																	
MATERIAL	STANDARD																	
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MATERIAL	STANDARD																	
Copper or copper-alloy tubing (Type K, WK, L, or WL only. <i>i.e.</i> , Type M copper is prohibited, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447																	

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<p>605.5 Fittings. Pipe fittings shall be <i>approved</i> for installation with the piping material installed and shall comply with the applicable standards listed in Table 605.5. Pipe fittings utilized in water supply systems shall also comply with NSF 61. Ductile and gray iron pipe fittings shall be cement mortar lined in accordance with AWWA C104. For repairs all copper, brass and stainless steel joints below a building slab shall be brazed and/or welded in accordance with the requirements of this code, as appropriate. With the exception of heat fused polypropylene, all other joints and fittings for plastic pipe below a building slab are prohibited.</p> <p>P2905.6 Fittings. Pipe fittings shall be <i>approved</i> for installation with the piping material installed and shall comply with the applicable standards listed in Table P2905.6. All pipe fittings used in water supply systems shall also comply with NSF 61. For repairs all copper, brass and stainless steel joints below a building slab shall be brazed and/or welded in accordance with the requirements of this code, as appropriate. With the exception of heat fused polypropylene, all other joints and fittings for plastic pipe below a building slab are prohibited.</p>	<p>Add verbiage to Section 605.5 of the IPC and P2905.6 of the IRC regarding installation of joints and fittings under building slabs. Joints are more prone to failing than straight lengths of pipe and if a joint fails under a slab it can lead to a very difficult and expensive fix for the home/building owner. Recommend limiting the joints to those listed.</p>	<p>PASSED</p> <p>Note: the PTC voted to add the words “for repairs” as seen highlighted in the adjacent column.</p>
<p>607.3.2 Backflow prevention device or check valve. Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed at an accessible location between the checking device and the water heating equipment to limit thermal expansion of the water being heated to not more than 80 psi (552 kPa) static pressure at any fixture on the system. A potable water expansion tank or auxiliary relief valve set at 80 psi (552 kPa) shall be acceptable. The auxiliary relief valve shall be in addition to the water heater safety relief valve. This thermal expansion control device shall be designed and trimmed for repeated operation. The valve shall be a minimum 1/2-inch pipe size, shall be adjustable and calibrated, and shall include a tag describing its function.</p> <p>P2903.4.2 Backflow prevention device or check valve. Where a backflow prevention device, check valve or other device is installed on a water supply system utilizing storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed at an accessible location between the checking device and the water heating equipment to limit thermal expansion of the water being heated to not more than 80 psi (552 kPa) static pressure at any fixture on the system. A potable water expansion tank or auxiliary relief valve set at 80 psi</p>	<p>Recommend adding additional language to the IPC and IRC to clarify the approved methods of thermal expansion control in situations involving BF preventers creating a “closed system”. Have received many questions regarding approved methods in the past and this provides useful language to minimize confusion.</p>	<p>PASSED</p>

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(552 kPa) shall be acceptable. The auxiliary relief valve shall be in addition to the water heater safety relief valve. This thermal expansion control device shall be designed and trimmed for repeated operation. The valve shall be a minimum 1/2-inch pipe size, shall be adjustable and calibrated, and shall include a tag describing its function.														
TABLE 605.3 WATER SERVICE PIPE <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Acrylonitrile butadiene styrene (ABS) plastic pipe</td><td>ASTM D 1527; ASTM D 2282</td></tr><tr><td>Asbestos cement pipe</td><td>ASTM C 296</td></tr></table> <u>Amend the 2012 IRC as follows:</u> TABLE P2905.4 WATER SERVICE PIPE <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Acrylonitrile butadiene styrene (ABS) plastic pipe</td><td>ASTM D 1527; ASTM D 2282</td></tr><tr><td>Asbestos cement pipe</td><td>ASTM C 296</td></tr></table>	MATERIAL	STANDARD	Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282	Asbestos cement pipe	ASTM C 296	MATERIAL	STANDARD	Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282	Asbestos cement pipe	ASTM C 296	Recommend removing Asbestos Cement Pipe as an approved water service pipe material in the IPC and IRC and deleting ASTM C 296 from Chapter 14. From EPA: http://water.epa.gov/drink/contaminants/basicinformation/asbestos.cfm What are asbestos' health effects? Some people who drink water containing asbestos well in excess of the maximum contaminant level (MCL) for many years may have an increased risk of developing benign intestinal polyps. How does asbestos get into my drinking water? The major sources of asbestos in drinking water are decay of asbestos cement water mains; and erosion of natural deposits.	PASSED
MATERIAL	STANDARD													
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282													
Asbestos cement pipe	ASTM C 296													
MATERIAL	STANDARD													
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282													
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TABLE 605.5 PIPE FITTINGS <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper alloy</td><td>ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29</td></tr></table> <u>Amend the 2012 IRC as follows:</u> TABLE P2905.6 PIPE FITTINGS <table><tr><th>MATERIAL</th><th>STANDARD</th></tr><tr><td>Copper or copper alloy</td><td>ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29</td></tr></table>	MATERIAL	STANDARD	Copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23 ; ASME B16.26; ASME B16.29	MATERIAL	STANDARD	Copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23 ; ASME B16.26; ASME B16.29	Recommend removing ASME B16.23 (Cast Copper Alloy Solder Joint Drainage Fittings: DWV) and ASME B 16.29 (Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings-DWV) from Table 605.5 of the IPC and Table 2905.6 of the IRC as these fittings are designed for DWV systems, not potable water supply or distribution systems.	PASSED				
MATERIAL	STANDARD													
Copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23 ; ASME B16.26; ASME B16.29													
MATERIAL	STANDARD													
Copper or copper alloy	ASSE 1061; ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23 ; ASME B16.26; ASME B16.29													
SECTION 309 FLOOD HAZARD RESISTANCE [B] 309.2 Flood hazard.	Recommend amending the applicable sections within the IPC and IRC relating to water wells to prevent code confliction and	PASSED												

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<p>For structures located in flood hazard areas, the following systems and equipment shall be located and installed as required by Section 1612 of the <i>International Building Code</i>.</p> <p>Exception: The following systems are permitted to be located below the elevation required by Section 1612 of the <i>International Building Code</i> for utilities and attendant equipment provided that the systems are designed and installed to prevent water from entering or accumulating within their components and the systems are constructed to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to up to such elevation.</p> <ol style="list-style-type: none"> 1. All water service pipes. 2. Pump seals in individual water supply systems where the pump is located below the design flood elevation. 3. Covers on potable water wells shall be sealed, except where the top of the casing well or pipe sleeve is elevated to not less than 1 foot (305 mm) above the design flood elevation. 4.2. All sanitary drainage piping. 5.3. All storm drainage piping. 6.4. Manhole covers shall be sealed, except where elevated to or above the design flood elevation. 7.5. All other plumbing fixtures, faucets, fixture fittings, piping systems and equipment. 8.6. Water heaters. 9.7. Vents and vent systems. <p>602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized a <i>private water supply</i> meeting the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells) shall be utilized.</p> <p>602.3.1 Sources: Dependent on geological and soil conditions and the amount of rainfall, individual water supplies are of the following types: drilled well, driven well, dug well, bored well, spring, stream or cistern. Surface bodies of water and land cisterns shall not be sources of individual water supply unless properly treated by approved means to prevent contamination.</p> <p>602.3.2 Minimum quantity: The combined capacity of the source and storage in an individual water supply system shall supply the fixtures with water at rates and pressures as</p>	<p>duplication of efforts between State agencies.</p> <p><u>Louisiana Department of Health & Hospitals – Office of Public Health (R.S. 40:4, R.S. 40:5): LAC 51:XII (Water Supplies)</u></p> <p><u>Department of Natural Resources – Office of Conservation (R.S. 38:3071-3084 (Capital Area Ground Water Commission District), R.S. 38:3091-3095, and R.S. 38:3098-3098.8): LAC 43:VI (Water Resources Management), LAC 56:I (Water Wells)</u></p>	

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<p>required by this chapter.</p> <p>602.3.3 Water quality: Water from an individual water supply shall be approved as potable by the authority having jurisdiction prior to connection to the plumbing system.</p> <p>602.3.4 Disinfection of system: After construction or major repair, the individual water supply system shall be purged of deleterious matter and disinfected in accordance with Section 610.</p> <p>602.3.5 Pumps: Pumps shall be rated for the transport of potable water. Pumps in an individual water supply system shall be constructed and installed so as to prevent contamination from entering a potable water supply through the pump units. Pumps shall be sealed to the well casing or covered with a water-tight seal. Pumps shall be designed to maintain a prime and installed such that ready access is provided to the pump parts of the entire assembly for repairs.</p> <p>602.3.5.1 Pump enclosure: The pump room or enclosure around a well pump shall be drained and protected from freezing by heating or other approved means. Where pumps are installed in basements, such pumps shall be mounted on a block or shelf not less than 18 inches (457 mm) above the basement floor. Well pits shall be prohibited.</p> <p>608.17 Protection of individual water supplies. An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with Sections 608.17.1 through 608.17.8; the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells).</p> <p>608.17.1 Well locations: A potable ground water source or pump suction line shall not be located closer to potential sources of contamination than the distances shown in Table 608.17.1. In the event the underlying rock structure is limestone or fragmented shale, the local or state health department shall be consulted on well site location. The distances in Table 608.17.1 constitute minimum separation and shall be increased in areas of creviced rock or limestone, or where the direction of movement of the ground water is from sources of contamination toward the well.</p> <p>TABLE 608.17.1 DISTANCE FROM CONTAMINATION TO PRIVATE WATER SUPPLIES AND PUMP SUCTION LINES</p>		

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<table><tr><th>SOURCE OF CONTAMINATION</th><th>DISTANCE (feet)</th></tr><tr><td>Barnyard</td><td>400</td></tr><tr><td>Farm silo</td><td>25</td></tr><tr><td>Pasture</td><td>400</td></tr><tr><td>Pumphouse floor drain of cast iron draining to ground surface</td><td>2</td></tr><tr><td>Seepage pits</td><td>50</td></tr><tr><td>Septic tank</td><td>25</td></tr><tr><td>Sewer</td><td>40</td></tr><tr><td>Subsurface disposal fields</td><td>50</td></tr><tr><td>Subsurface pits</td><td>50</td></tr></table>		SOURCE OF CONTAMINATION	DISTANCE (feet)	Barnyard	400	Farm silo	25	Pasture	400	Pumphouse floor drain of cast iron draining to ground surface	2	Seepage pits	50	Septic tank	25	Sewer	40	Subsurface disposal fields	50	Subsurface pits	50		
SOURCE OF CONTAMINATION	DISTANCE (feet)																						
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Seepage pits	50																						
Septic tank	25																						
Sewer	40																						
Subsurface disposal fields	50																						
Subsurface pits	50																						
For SI: 1 foot = 304.8 mm.																							
<p>608.17.2 Elevation. Well sites shall be positively drained and shall be at higher elevations than potential sources of contamination.</p> <p>608.17.3 Depth. Private potable well supplies shall not be developed from a water table less than 10 feet (3048 mm) below the ground surface.</p> <p>608.17.4 Water-tight casings. Each well shall be provided with a water-tight casing extending to not less than 10 feet (3048 mm) below the ground surface. Casings shall extend not less than 6 inches (152 mm) above the well platform. Casings shall be large enough to permit installation of a separate drop pipe. Casings shall be sealed at the bottom in an impermeable stratum or extend several feet into the water-bearing stratum.</p> <p>608.17.5 Drilled or driven well casings. Drilled or driven well casings shall be of steel or other <i>approved</i> material. Where drilled wells extend into a rock formation, the well casing shall extend to and set firmly in the formation. The annular space between the earth and the outside of the casing shall be filled with cement grout to a depth of not less than 10 feet (3048 mm) below the ground surface. In an instance of casing to rock installation, the grout shall extend to the rock surface.</p> <p>608.17.6 Dug or bored well casings. Dug or bored well casings shall be of water-tight concrete, tile, or</p>																							

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<p>galvanized or corrugated metal pipe extending to not less than 10 feet (3048 mm) below the ground surface. Where the water table is more than 10 feet (3048 mm) below the ground surface, the water-tight casing shall extend below the table surface. Well casings for dug wells or bored wells constructed with sections of concrete, tile, or galvanized or corrugated metal pipe shall be surrounded by 6 inches (152 mm) of grout poured into the hole between the outside of the casing and the ground and extending not less than 10 feet (3048 mm) below the ground surface.</p> <p>608.17.7 Cover: Potable water wells shall be equipped with an overlapping water-tight cover at the top of the well casing or pipe sleeve such that contaminated water or other substances are prevented from entering the well through the annular opening at the top of the well casing, wall or pipe sleeve. Covers shall extend downward not less than 2 inches (51 mm) over the outside of the well casing or wall. A dug well cover shall be provided with a pipe sleeve permitting the withdrawal of the pump suction pipe, cylinder or jet body without disturbing the cover. Where pump sections or discharge pipes enter or leave a well through the side of the casing, the circle of contact shall be water tight.</p> <p>608.17.8 Drainage: Potable water wells and springs shall be constructed such that surface drainage will be diverted away from the well or spring.</p>		
<p>SECTION P2609 MATERIALS AND EVALUATION LISTING</p> <p>P2602.1 General. The water-distribution and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply or community sewerage system, respectively, if available. When either a public water-supply or community sewerage system, or both, are not available, or connection to them is not feasible, an individual private water supply complying with the applicable requirements of LAC 51:XII (Water Supplies) and LAC 56:I (Water Wells) or individual (private) sewage-disposal system complying with the applicable requirements of LAC 51:XIII (Sewage Disposal), or both, shall be provided.</p>	<p>Recommend amending the IRC as shown to ensure private water supply and individual sewerage disposal systems are designed and installed in accordance with existing State requirements.</p> <p>Note: Additional definitions relative to “community sewerage system”, “sewerage system” and “sanitary sewage” will be added (see Chapter 7 review) to define wording used in P2602.1 relative to same.</p>	PASSED
<p>P2609.5 Water supply systems. Water service pipes, water distribution pipes and the necessary connecting pipes, fittings, control valves, faucets and appurtenances used to dispense water intended for human ingestion consumption shall be evaluated and listed as conforming to the requirements of NSF 61. All potable water pipes, fittings, valves, and fixtures shall be lead free and shall be evaluated and listed as</p>	<p>Amend the IRC as shown to ensure the new low lead levels are specified for water service pipes, water distribution pipes and other components of water supply systems.</p>	PASSED

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<p>conforming with NSF/ANSI 372. Any solder or flux which is used in the installation or repair of any <i>public water system</i> or any plumbing in a residential or nonresidential facility providing water for human consumption shall be <i>lead free</i>. Exception. The lead free requirement above shall not apply to:</p> <ul style="list-style-type: none"> a. leaded joints necessary for the repair of existing cast iron pipes; b. fire hydrants, pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption; or, c. toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger. 		
<p>MULTIPURPOSE PIPING FIRE SPRINKLER SYSTEM. A piping system intended to serve both domestic needs in excess of a single fixture and fire protection needs from one common piping system throughout the dwelling unit(s).</p> <p>STAND-ALONE FIRE SPRINKLER SYSTEM. A sprinkler system where the aboveground piping serves only fire sprinklers.</p>	<p>Add definitions of “multipurpose piping fire sprinkler system” and “stand-alone fire sprinkler system” to Chapter 2 of the IRC (essentially taken from NFPA 13D-2013 – added the word “fire” before sprinkler to differentiate from “lawn” sprinkler).</p>	<p>PASSED</p>
<p>CHAPTER 29 WATER SUPPLY AND DISTRIBUTION SECTION 2904 DWELLING UNIT FIRE SPRINKLER SYSTEMS P2904.1 General The design and installation of residential fire sprinkler systems shall be in accordance with NFPA 13 D or Section P2904, which ever is stricter shall be considered equivalent to NFPA 13D. Partial residential sprinkler systems shall be permitted to be installed only in buildings not required to be equipped with a residential fire sprinkler. Section P2904 shall apply to stand-alone and multipurpose wet-pipe fire sprinkler systems that do not include the use of antifreeze. A multipurpose piping fire sprinkler system shall provide domestic water to both fire sprinklers and plumbing fixtures. A stand-alone fire sprinkler system shall be separate and independent from the water distribution system. A backflow preventer shall not be required to separate a stand-alone fire sprinkler system from the water distribution system.</p> <p>P2904.3 Sprinkler piping system Sprinkler piping shall be supported in accordance with requirements for potable cold water distribution piping. Sprinkler piping shall comply with all requirements for potable cold water distribution piping. For multipurpose piping systems, the sprinkler piping shall connect to and be a part of the</p>	<p>It does not appear that NFPA 13D and Section P2904 are equivalent, thus struck “shall be considered equivalent to NFPA 13D”. NFPA 13D, for example, contains many more definitions than does the IRC relative to residential fire sprinklers. Had to add the above definitions in the IRC to understand what the IRC intended because the IRC did not include such definitions.</p> <p>If properly designed without large fire sprinkler loops in the potable cold water distribution piping, then a multipurpose piping fire sprinkler system should not have any “dead” water. However, a stand-alone fire sprinkler system would contain nothing but “dead” water and such water could become injurious to health if it backflowed into the domestic water supply system of the residence. Therefore, an approved backflow preventer is required to protect the health of the residents.</p>	<p>TIED</p>

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potable cold water distribution system. All potable cold water distribution piping, including that of a multipurpose piping fire sprinkler system, shall be in compliance with the applicable provisions and referenced standards of P2905.5.		
Remove ASTM D2609 from Table P2905.6 of the IRC and Table 605.5 of the IPC.	Remove PE plastic insert fittings from the IPC and IRC. These fittings have prohibited for use in LA.	TIED
TABLE P2905.5 WATER DISTRIBUTION PIPE MATERIAL Galvanized steel pipe (above ground use only) ASTM A 53	Galvanized steel pipe is acceptable for water service lines wherein it is buried and can be dug up and repaired. However, galvanized steel pipe should not be used for buried water distribution pipe as once it corrodes and leaks, you may have to break the concrete to perform a replacement or repair.	PASSED
LEAD-FREE PIPE AND FITTINGS. Containing not more than 8.0-percent lead. LEAD-FREE SOLDER AND FLUX. Containing not more than 0.2-percent lead. WELL. Bored. A well constructed by boring a hole in the ground with an auger and installing a casing. Drilled. A well constructed by making a hole in the ground with a drilling machine of any type and installing casing and screen. Driven. A well constructed by driving a pipe in the ground. The drive pipe is usually fitted with a well point and screen. Dug. A well constructed by excavating a large diameter shaft and installing a casing.	DELETE DEFINITIONS FROM CHAPTER 2 OF THE 2012 IPC.	PASSED
INDIVIDUAL WATER SUPPLY. A water supply that serves one or more families, and that is not an <i>approved</i> public water supply. PUBLIC WATER MAIN. A water supply pipe for public use controlled by public authority.	DELETE THE FOLLOWING DEFINITION FROM THE 2012 IPC AND IRC.	PASSED
NONPOTABLE WATER. Ordinarily, water not safe for drinking, personal or culinary utilization. In addition to its ordinary meaning, includes water of questionable potability on the discharge side of a backflow preventer used to isolate a portion of the water distribution piping system from the remainder of the <i>water supply system</i> due to backflow connections.	ADD THE FOLLOWING DEFINITION TO THE 2012 IRC.	FAILED

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<p>DOMESTIC WELL. A water well used exclusively to supply the household needs of the owner/lessee and his family. Uses may include human consumption, sanitary purposes, lawn and garden watering and caring for pets.</p> <p>HUMAN CONSUMPTION. The use of water by humans for drinking, cooking, bathing, showering, hand washing, dishwashing, or maintaining oral hygiene.</p> <p>LEAD FREE. a. in general: i. not containing more than 0.2 percent lead when used with respect to solder and flux; and, ii. not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.</p> <p>b. calculation: i. The weighted average lead content of a pipe, pipe fitting, plumbing fitting, or fixture shall be calculated by using the following formula: (a). For each wetted component, the percentage of lead in the component shall be multiplied by the ratio of the wetted surface area of that component to the total wetted surface area of the entire product to arrive at the weighted percentage of lead of the component. The weighted percentage of lead of each wetted component shall be added together, and the sum of these weighted percentages shall constitute the weighted average lead content of the product. The lead content of the material used to produce wetted components shall be used to determine compliance with Clause a.ii. above. For lead content of materials that are provided as a range, the maximum content of the range shall be used.</p>	<p>ADD THE FOLLOWING DEFINITIONS TO THE 2012 IPC and 2012 IRC.</p>	<p>PASSED</p>
<p>PERSON. A natural person, his heirs, executors, administrators, or assigns; and includes a firm, partnership or corporation, its or their successors or assigns, the State of Louisiana or any of its political subdivisions, the United States government of any of its political subdivisions and any officer, employee and agent of one of those entities. Singular includes plural; male includes female.</p>	<p>ADD THE FOLLOWING DEFINITIONS TO THE 2012 IPC and 2012 IRC.</p>	<p>FAILED</p>
<p>POTABLE WATER SUPPLY. A publicly owned or privately owned <i>water supply system</i> which purveys <i>potable water</i>.</p> <p>PRIVATE WATER SUPPLY. A <i>potable water supply</i> that does not meet the criteria for a <i>public water supply</i> including, but not limited to, a <i>domestic well</i>.</p>	<p>ADD THE FOLLOWING DEFINITIONS TO THE 2012 IPC and 2012 IRC.</p>	<p>TIED</p>

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<p>PUBLIC WATER SUPPLY. <i>Public water system.</i></p> <p>PUBLIC WATER SYSTEM. A particular type of <i>water supply system</i> intended to provide <i>potable water</i> to the public having at least fifteen service connections or regularly serving an average of at least twenty-five individuals daily at least sixty days out of the year.</p> <p>WATER SUPPLIER. A <i>person</i> who owns or operates a <i>water supply system</i> including, but not limited to, a person who owns or operates a <i>public water system</i>.</p>		
<p>NONPOTABLE WATER. Ordinarily, water not safe for drinking, personal or culinary utilization. <u>In addition to its ordinary meaning, includes water of questionable potability on the discharge side of a backflow preventer used to isolate a portion of the water distribution piping system from the remainder of the water supply system due to backflow connections.</u></p>	AMEND 2012 IPC.	TIED
<p>WATER MAIN. A water supply pipe or system of pipes, installed and maintained by a city, township, county, public utility company or other public entity, on public property, in the street or in an approved dedicated easement of public or community use. <i>This term shall also mean the principal artery (or arteries) used for the distribution of potable water to consumers by any water supplier including, but not limited to, those public water systems which are not owned by the public and which may not be on public property.</i></p>	AMEND 2012 IPC	PASSED
<p>WATER MAIN. A water supply pipe for public use. A water supply pipe or system of pipes, installed and maintained by a city, township, county, public utility company or other public entity, on public property, in the street or in an approved dedicated easement of public or community use. This term shall also mean the principal artery (or arteries) used for the distribution of <i>potable water</i> to consumers by any <i>water supplier</i> including, but not limited to, those <i>public water systems</i> which are not owned by the public and which may not be on public property.</p>	AMEND THE 2012 IRC	TIED
<p>POTABLE WATER. Water free from impurities present in amount sufficient to cause disease or harmful physiological effects and conforming to the bacteriological, physical, radiological, and chemical quality requirements of the Public Health Service Drinking Water Standards <u>federal Safe Drinking Water Act</u> or the regulations of the public health authority having jurisdiction <u>Department of Health and Hospitals, Office of Public Health.</u></p>	AMEND THE FOLLOWING DEFINITIONS IN BOTH THE 2012 IPC AND IRC	PASSED
<p>WATER SUPPLY SYSTEM. The <i>water service pipe, water distribution pipes, and the necessary connecting pipes, fittings, control valves and all appurtenances in</i></p>	AMEND THE FOLLOWING DEFINITIONS IN BOTH THE 2012IPC AND IRC	TIED

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<p>or adjacent to the <i>structure</i> or premise. This term shall also mean the system of pipes or other constructed conveyances, structures and facilities through which water is obtained, treated to make it potable (if necessary) and then distributed (with or without charge) for <i>human consumption</i> or other use.</p>		
<p>CHAPTER 6 – WATER SUPPLY AND DISTRIBUTION – BACKFLOW / CROSS CONNECTION CONTROL</p>		
<p>608.6 Cross-connection control. Cross connections shall be prohibited, except where approved backflow prevention devices, assemblies, or methods are installed to protect the potable water supply. A dual check valve type backflow preventer (<i>i.e., device meeting ASSE 1024 or CSA B64.6 with two spring loaded, independently operating check valves without tightly closing shut-off valves or test cocks which is commonly installed immediately downstream of water meters by water suppliers</i>) is not an approved backflow prevention device when a known cross connection exists downstream of the device. These devices are only allowed to be installed when no cross connections exist downstream of the device or when all downstream cross connections are properly protected by approved backflow prevention devices, assemblies, or methods.</p>	<p>Dual check valves are commonly installed by water systems during meter replacements. They offer some protection but are not a testable device so they are not approved for BF protection. They can be installed if a customer or water supplier so desires but only if there are no cross connections downstream of the device or the appropriate level of protection is provided for the cross connections that exist on the premises. Recommend amending section 608.6 of the IPC to reduce confusion and prevent this device from being used in an application where it won't provide adequate protection.</p>	<p>PASSED</p>
<p>2012 IRC: P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow prevention assembly. Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. When an irrigation/lawn sprinkler system is provided with separate zones, the potable water supply shall be protected by a pressure vacuum breaker or reduced pressure principle backflow prevention assembly. Atmospheric vacuum breakers shall be installed at least 6 inches (152 mm) above the highest point of usage (i.e., 6 inches (152 mm) above all downstream piping or highest sprinkler head). Pressure type vacuum breakers shall be installed at least 12 inches (305 mm) above the highest point of usage (i.e., 12 inches (305 mm) above all downstream piping and the highest sprinkler head). Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly. 2012 IPC: 608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow prevention assembly.</p>	<p>Irrigation can introduce bacteriological and/or chemical contaminants into a potable water system therefore, it is important to protect the public against any health hazard from these systems. Atmospheric vacuum breakers and pressure vacuum breakers provide adequate protection, but only if they are selected for the proper application and installed correctly. If the downstream piping or outlets are above the vacuum breaker then the resulting backpressure may flow back (backflow) through the vacuum breaker. Similarly, if shutoff valves are installed downstream of a AVB, the continuous pressure can prevent the device from functioning properly. Recommend amending the IRC and IPC as shown in the adjacent column.</p>	<p>PASSED</p>

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<p>Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. When an irrigation/lawn sprinkler system is provided with separate zones, the potable water supply shall be protected by a pressure vacuum breaker or reduced pressure principal backflow prevention assembly. Atmospheric vacuum breakers shall be installed at least 6 inches (152 mm) above the highest point of usage (i.e., 6 inches (152 mm) above all downstream piping or highest sprinkler head). Pressure type vacuum breakers shall be installed at least 12 inches (305 mm) above the highest point of usage (i.e., 12 inches (305 mm) above all downstream piping and the highest sprinkler head). Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly.</p>		
<p>P2902.6.2 Protection of backflow preventers. Backflow preventers installed shall not be located in areas subjected to freezing temperatures shall be except where they can be removed by means of unions, or are protected by heat, insulation or both; or as otherwise recommended by the manufacturer.</p> <p>608.14.2 Protection of backflow preventers. Backflow preventers installed shall not be located in areas subjected to freezing temperatures shall be except where they can be removed by means of unions, or are protected by heat, insulation or both; or as otherwise recommended by the manufacturer.</p>	<p>The current wording of the IRC and IPC could be misinterpreted to mean that BF preventers are not required in areas that experience freezing temperatures. Also, removing a backflow prevention device from service triggers the need for a test upon re-installation to ensure it is still working properly. Most home and business owners would not complete this required test which could result in putting a non-working backflow preventer back into service. The temperatures in Louisiana fluctuate wildly in the winter time and in many cases a home or business owner may get tired of removing and reinstalling a backflow preventer. This could lead to the owner ultimately removing the device from service or installing a bypass which would totally negate the necessary protection. Recommend amending the necessary sections within the IRC and IPC as shown in the adjacent column in order to reduce confusion and to minimize the practice of taking devices out of service.</p>	PASSED
<p>608.16.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, 608.13.2, 608.13.3, 608.13.7 608.13.5, 608.13.6, or 608.13.8. The type of backflow preventer shall be selected based upon the application in accordance with Table 608.1.</p>	<p>Section 608.16.8 of the IPC allows the use of a double check valve assembly for backflow protection on portable cleaning equipment. Double check valves are only approved for low hazard applications. Cleaning equipment is considered high hazard. Also, recommend allowing the use of vacuum breakers since some cleaning equipment may not have the potential for creating back pressure. To ensure that the correct BF is selected for the equipment used, recommend specifying that the type of BF preventer should be selected based on application. See recommended amendment to Section 608.16.8 of the IPC.</p>	PASSED

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<p>2012 IRC:</p> <p>P2902.3.2 Atmospheric-type vacuum breakers. Pipe-applied atmospheric-type vacuum breakers shall conform to ASSE 1001 or CSA B64.1.1. Pipe-applied atmospheric type vacuum breakers shall be installed not less than 6 inches (152 mm) above all downstream piping and not less than 6 inches (152 mm) above the flood-level rim of the fixture receptor or device served. Hose-connection vacuum breakers shall conform to ASSE 1011, ASSE 1019, ASSE 1035, ASSE 1052, CSA B64.2, CSA B64.2.1, CSA B64.2.1.1, CSA B64.2.2 or CSA B64.7. These devices shall operate under normal atmospheric pressure when the critical level is installed at the required height. Atmospheric vacuum breakers including, but not limited to, hose bibb vacuum breakers shall not be subjected to continuous water pressure and shutoff or control valves shall not be installed downstream of these devices.</p> <p>P2902.3.4 Pressure vacuum breaker assemblies. Pressure vacuum breaker assemblies shall conform to ASSE 1020 or CSA B64.1.2. Spill-resistant vacuum breaker assemblies shall comply with ASSE 1056. These assemblies shall be installed not less than 12 inches (305 mm) above all downstream piping and not less than 12 inches (305 mm) above the flood-level rim of the fixture receptor or device served. These assemblies are designed for installation under continuous pressure conditions where the critical level is installed at the required height. Pressure vacuum breaker assemblies shall not be installed in locations where spillage could cause damage to the structure.</p> <p>2012 IPC:</p> <p>608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. The critical level of atmospheric type vacuum breakers shall be installed not less than 6 inches (152 mm) above all downstream piping and not less than 6 inches (152 mm) above the flood-level rim of the fixture receptor or device served. the vacuum breaker shall be set not less than 6 inches (152 mm) above the flood level rim of the fixture or device. Shutoff or control valves shall not be installed downstream from an atmospheric vacuum breaker. Atmospheric vacuum breakers including, but not limited to, hose bibb vacuum breakers shall not be subjected to continuous water pressure. The critical level of pressure type vacuum breakers shall be installed not less than 12 inches (305 mm) above all downstream piping and not less than 12 inches (305 mm) above the flood-level rim of the fixture receptor or device served. Fill valves shall be set in accordance with <u>Section 425.3.1</u>. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic</p>	<p>Amend the 2012 IRC and IPC as recommended to help ensure that atmospheric and pressure vacuum breakers are installed correctly.</p>	<p>PASSED</p>

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<p>fumes or vapors. Pipe-applied vacuum breakers shall be installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor or device served.</p>		
<p>2012 IRC: P2902.4.3 Hose connection. Sillcocks, hose bibbs, wall hydrants and other openings with a hose connection shall be protected against backflow by an atmospheric-type or pressure-type vacuum breaker installed in accordance with Section 608.15.4, or by a permanently attached hose connection vacuum breaker in which the highest point of usage is less than 10 feet above the hose connection vacuum breaker. Hose bib vacuum breakers shall not be subjected to continuous water pressure.</p> <p>2012 IPC: 608.15.4.2 Hose connections. Sillcocks, hose bibbs, wall hydrants and other openings with a hose connection shall be protected against backflow by an atmospheric-type or pressure-type vacuum breaker installed in accordance with Section 608.15.4, or by a permanently attached hose connection vacuum breaker in which the highest point of usage is less than 10 feet above the hose connection vacuum breaker. Hose bib vacuum breakers shall not be subjected to continuous water pressure.</p> <p>Continuous Water Pressure – A condition when a backflow preventer is continuously subjected to the upstream water supply pressure for a period of 12 hours or more.</p>	<p>Recommend amending Sections P2902.4.3 of the IRC and 608.15.4.2 of the IPC as shown to ensure hose bib vacuum breakers are installed and used correctly. These devices are easily damaged if subjected to continuous pressure or back pressure.</p> <p>Add definition to Chapter 2.</p>	<p>PASSED</p>
<p>2012 IRC: P2902.6 Location of backflow preventers. Access shall be provided to backflow preventers as specified by the manufacturer's installation instructions for the required testing, maintenance and repair. A minimum of 1-foot of clearance shall be provided between the lowest portion of the assembly and grade or platform. Elevated installations exceeding 5-feet above grade(g) shall be provided with a suitably located permanent platform capable of supporting the installer, tester, or repairer. Reduced pressure zone (RPZ) type backflow preventers, and other types of backflow preventers with atmospheric ports and/or test cocks (e.g., atmospheric type vacuum breakers, double check valve assemblies, pressure type vacuum breaker assemblies, etc.), shall not be installed below grade (in vaults or pits) where the potential for a relief valve, an atmospheric port, or a test cock being submerged exists.</p> <p>2012 IPC: 608.14 Location of backflow preventers. Access shall be provided to backflow preventers as specified by the</p>	<p>Recommend inserting specific language into the IPC and the IRC to ensure proper space is provided during BF installations to allow for the necessary tests and maintenance. Also, recommend providing language that prevents backflow preventers with test cocks or atmospheric ports from being installed in vaults or pits below grade which creates cross connections.</p>	<p>TIED</p>

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<p>manufacturer's instructions for the required testing, maintenance and repair. A minimum of 1-foot of clearance shall be provided between the lowest portion of the assembly and grade or platform. Elevated installations exceeding 5-feet above grade(g) shall be provided with a suitably located permanent platform capable of supporting the installer, tester, or repairer. Reduced pressure principal type backflow preventers, and other types of backflow preventers with atmospheric ports and/or test cocks (e.g., atmospheric type vacuum breakers, double check valve assemblies, pressure type vacuum breaker assemblies, etc.), shall not be installed below grade (in vaults or pits) where the potential for a relief valve, an atmospheric port, or a test cock being submerged exists.</p>		
<p>312.10 Installation, inspection and testing of backflow prevention assemblies, barometric loops and air gaps. Installation, inspection and testing shall comply with Sections 312.10.1 and through 312.10.23.</p> <p>312.10.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies, barometric loops and air gaps to determine whether they are operable, properly installed and maintained, and meet testing/code requirements. Inspections of backflow prevention devices including barometric loops and air gaps used to protect high degree of hazard cross connections shall be documented in writing and the report provided to the owner of the backflow prevention device.</p> <p>312.10.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies and hose connection backflow preventers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10 or CSA B64.10.1, USC's FCCC & HR's "Manual of Cross-Connection Control", or UFL's TREEO's "Backflow Prevention – Theory and Practice". Any backflow preventer which is found to be defective shall be repaired.</p> <p>312.10.3 Owner Responsibilities. The owner of the backflow prevention assemblies shall comply with the following: i. It shall be the duty of the owner of the backflow prevention assembly to</p>	<p>Installation/testing/repair certification requirements are not provided in the IPC or IRC. Recommend making the changes shown in red.</p> <p>B64.10 standard does not specify the requirements for maintenance or field testing, B64.10.1 does.</p> <p>Due to ACT 836, DHH does not have the Authority to regulate Tester and Installation/Repairer Qualifications for backflow prevention devices located on the plumbing system. DHH will seek to retain this specific Authority.</p>	<p>PASSED</p>

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<p>see that these tests are made in a timely manner in accord with the frequency of field testing specified in 312.10.2 of this code.</p> <p>ii. The owner shall notify the <u>building official</u>, and/or water supplier (for those devices associated with <i>containment</i>) in advance when the tests are to be undertaken so that the <u>building official</u> and/or water supplier may witness the tests if so desired.</p> <p>iii. Upon completion, the owner shall provide records of such tests, repairs, overhauls, or replacements to the <u>building official</u> or water supplier (for those devices associated with <i>containment</i>). In addition, all records shall be kept by the owner of the backflow prevention device or method for at least 5 years and, upon specific request, shall be made available to the <u>building official</u> or water supplier.</p> <p>iv. All tests, repairs, overhauls or replacements shall be at the expense of the owner of the backflow preventer.</p> <p>P2902.8 Inspection and testing of backflow prevention assemblies, barometric loops and air gaps. Inspection and testing shall comply with <u>Sections</u> P2902.8.1 through <u>P2902.8.3</u>.</p> <p>P2902.8.1 Inspections. Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable, properly installed and maintained, and meet testing/code requirements. Inspections of backflow prevention devices including air gaps used to protect high degree of hazard cross connections shall be documented in writing and the report provided to the owner of the backflow prevention device.</p> <p>P2902.8.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10.1, USC's FCCC & HR's "Manual of Cross-Connection Control", or UFL's TREEO's "Backflow Prevention – Theory and Practice". Any backflow preventer which is found to be defective shall be repaired.</p> <p>P2902.8.3 Owner Responsibilities. The owner of the backflow prevention assemblies shall comply with the</p>	<p>ADD NEW SECTIONS TO THE 2012 IRC</p>	

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<p>following:</p> <ul style="list-style-type: none"> i. It shall be the duty of the owner of the backflow prevention assembly to see that these tests are made in a timely manner in accord with the frequency of field testing specified in 312.10.2 of this code. ii. The owner shall notify the <u>building official</u>, and/or water supplier (for those devices associated with <i>containment</i>) in advance when the tests are to be undertaken so that the <u>building official</u> and/or water supplier may witness the tests if so desired. iii. Upon completion, the owner shall provide records of such tests, repairs, overhauls, or replacements to the <u>building official</u> or water supplier (for those devices associated with <i>containment</i>). In addition, all records shall be kept by the owner of the backflow prevention device or method for at least 5 years and, upon specific request, shall be made available to the <u>building official</u> or water supplier. iv. All tests, repairs, overhauls or replacements shall be at the expense of the owner of the backflow preventer. 		
<p>608.16 Connections to the potable water system. Connections to the potable water system shall conform to Sections 608.16.1 through 608.16.40<u>27</u>. These Sections (608.16.1 – 608.16.27) are not inclusive of all potential contamination sources which may need fixture isolation protection. For potential contamination sources not listed in Sections 608.16.1 through 608.16.27, backflow prevention methods or devices shall be utilized in accordance with Table B1 of CAN/CSA B64.10-1994. When a potential contamination source and its associated backflow prevention method or device is not identified in this code or Table B1 of CAN/CSA B64.10-1994, backflow prevention methods or devices shall be utilized as directed by the <u>building official</u>.</p> <p>608.16.11 Cooling towers. The potable water supply to cooling towers shall be protected against backflow by an air gap.</p> <p>608.16.12 Chemical tanks. The potable water supply to chemical tanks shall be protected against backflow by an air gap.</p> <p>608.16.13 Commercial Dishwashers in commercial establishments. The potable water supply to commercial dishwashers in commercial establishments shall be protected against backflow by an air gap, atmospheric vacuum breaker, or pressure vacuum breaker. Vacuum breakers shall meet the</p>	<p>The IPC prescribes the level of backflow protection needed for a variety of fixtures in Section 608.16. However, this list does not include many common fixtures/connections which pose a health risk to potable water supplies. Recommend expanding this list as shown in the adjacent column. In addition, recommend adding CAN/CSA B64.10-<u>1994</u> to Chapter 14 Referenced Standards of the IPC.</p>	<p>PASSED</p>

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<p>requirements of Section 608.15.4.</p> <p>608.16.14 Ornamental Fountains. The potable water supply to ornamental fountains shall be protected against backflow by an air gap.</p> <p>608.16.15 Swimming pools, spas, hot tubs. The potable water supply to swimming pools, spas, or hot tubs shall be protected against backflow by an air gap or reduced pressure principal backflow prevention assembly.</p> <p>608.16.16 Baptismal fonts. The potable water supply to baptismal fonts shall be protected against backflow by an air gap.</p> <p>608.16.17 Animal watering troughs. The potable water supply to animal watering troughs shall be protected against backflow by an air gap.</p> <p>608.16.18 Agricultural chemical mixing tanks. The potable water supply to agricultural chemical mixing tanks shall be protected against backflow by an air gap.</p> <p>608.16.19 Water hauling trucks. The potable water supply to water hauling trucks/tankers shall be protected against backflow by an air gap when filled from above. When allowed to be filled from below, they shall be protected by a reduced pressure principle backflow prevention assembly. When a tanker truck is designated for the hauling of food grade products (and has been cleaned utilizing food grade cleaning procedures) and is allowed to be filled from below, a double check valve assembly shall be acceptable.</p> <p>608.16.20 Air conditioning chilled water systems and/or condenser water systems. The potable water supply to air conditioning chilled water systems and condenser water systems shall be protected against backflow by a reduced pressure principal backflow prevention assembly.</p> <p>608.16.21 Pot-type chemical feeders. The potable water supply to pot-type chemical feeders shall be protected against backflow by a reduced pressure principal backflow prevention assembly.</p>		

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<p>608.16.22 Food processing steam kettles. The potable water supply to food processing steam kettles shall be protected against backflow by a double check valve backflow prevention assembly.</p> <p>608.16.23 Individual travel trailer pads. The potable water supply to individual travel trailer pads shall be protected against backflow by a double check valve backflow prevention assembly.</p> <p>608.16.24 Laboratory and/or medical aspirators. The potable water supply to laboratory and/or medical aspirators shall be protected against backflow by an atmospheric or pressure vacuum breaker installed in accordance with Sections 608.3.1 and 608.15.4.</p> <p>608.16.25 Laboratory or other sinks with threaded or serrated nozzles. The potable water supply to laboratory sinks or other sinks with threaded or serrated nozzles shall be protected against backflow by an atmospheric or pressure vacuum breaker installed in accordance with Sections 608.3.1 and 608.15.4.</p> <p>608.16.26 Mortuary/embalming aspirators. The potable water supply to mortuary/embalming aspirators shall be protected against backflow by a pressure vacuum breaker installed in the supply line serving the aspirator. The critical level of the vacuum breaker shall be installed a minimum of 12 inches higher than the aspirator. The aspirator shall be installed at least 6 inches above the highest level at which suction may be taken. An air gap shall be provided between the outlet of the discharge pipe and the overflow rim of the receiving fixture.</p> <p>608.16.27 Room(s) or other sub-unit(s) of a premise or facility receiving water where access is prohibited. When access is prohibited to particular areas, rooms, or other sub-units of a premise or facility which is receiving water, the potable water supply serving those areas shall be protected against backflow by a reduced pressure principal backflow protection assembly.</p>		
<p>IRCs: P2902.5.2 Heat exchangers. Heat exchangers utilizing an essentially toxic heat transfer fluid or which contains any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium, shall be separated from the potable water supply by a reduced</p>		TIED

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<p>pressure principal backflow prevention assembly double-wall construction. An <i>air gap</i> open to the atmosphere shall be provided between the two walls. Heat exchangers utilizing an essentially nontoxic transfer fluid and which does not use any chemical, additive, or corrosion inhibitor, etc., shall be separated from the potable water supply by a double check valve backflow prevention assembly.</p> <p>EXCEPTION: Backflow protection shall not be required on the potable water piping supplying double-walled heat exchangers when an air gap, open to the atmosphere, is provided between the two walls which provides readily visible discharge shall be permitted to be of single wall construction.</p> <p>2012 IPC: 608.16.3 Heat exchangers. Heat exchangers utilizing an essentially toxic heat transfer fluid or which contains any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium, shall be separated from the potable water supply by a reduced pressure principal backflow prevention assembly double-wall construction. An <i>air gap</i> open to the atmosphere shall be provided between the two walls. Heat exchangers utilizing an essentially nontoxic transfer fluid and which does not use any chemical, additive, or corrosion inhibitor, etc., shall be separated from the potable water supply by a double check valve backflow prevention assembly.</p> <p>EXCEPTION: Backflow protection shall not be required on the potable water piping supplying double-walled heat exchangers when an air gap, open to the atmosphere, is provided between the two walls which provides readily visible discharge shall be permitted to be of single wall construction.</p>		
<p>P2902.5.5 Solar systems. Heat exchangers shall be separated from the potable water by double-wall construction. An <i>air gap</i> open to the atmosphere shall be provided between the two walls.</p> <p>The potable water supply to a solar system shall be equipped with a backflow preventer with intermediate atmospheric vent complying with ASSE 1012 or a reduced pressure principle backflow preventer complying with ASSE 1013. Where chemicals are used, the potable water supply shall be protected by a reduced pressure principle backflow preventer.</p> <p>Exception: Where all solar system piping is a part of the potable water distribution system, in accordance with the requirements of the <i>International Plumbing Code</i>, and all components of the piping system are listed for potable</p>		TIED

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water use, cross-connection protection measures shall not be required.								
P2902.5.6 Connections to swimming pools. The potable water supply to swimming pools shall be protected against backflow by an air gap or reduced pressure principal backflow prevention assembly. P2902.5.7 Connections to animal watering troughs, ornamental fountains, or other similar equipment. The potable water supply to animal watering troughs, ornamental fountains, or other similar fixtures shall be protected against backflow by an air gap.	Swimming pools, water troughs, and ornamental fountains pose a contamination risk to potable water supplies and are commonly associated with residential dwellings. Recommend adding the backflow requirements for these fixtures/connections into the IRC as shown in the adjacent column.	PASSED						
Containment —a method of <i>backflow</i> prevention which requires a <i>backflow</i> prevention device or method on the <i>water service pipe</i> to isolate the customer from the <i>water main</i> .	Add DEFINITION IN THE 2012 IRC and IPC	PASSED						
608.18 Containment practices. Backflow prevention methods or devices shall be utilized as directed by the water supplier or <u>code official</u> to isolate specific water supply system customers from the water supply system's mains when such action is deemed necessary to protect the water supply system against potential contamination caused by backflow of water from that part of the water system owned and maintained by the customer (for example, the piping downstream of the water meter, if provided). Minimum requirements shall be in accordance with Section 608.18.1 through 608.18.2. 608.18.1 Containment requirements. As a minimum, the following types of backflow prevention assemblies or methods shall be installed and maintained by water supply system customers immediately downstream of the water meter (if provided) or on the water service pipe prior to any branch line or connections serving the listed customer types and categories. TABLE 608.18.1 CONTAINMENT REQUIREMENTS <table><tr><td>Air Gap</td></tr><tr><td>1. Fire Protection/Sprinkler System utilizing non-potable water as an alternative or primary source of water</td></tr><tr><td>Reduced Pressure Principle Backflow Prevention Assembly</td></tr><tr><td>1. Hospitals, Out-Patient Surgical Facilities, Renal Dialysis Facilities, Veterinary Clinics</td></tr><tr><td>2. Funeral Homes, Mortuaries</td></tr><tr><td>3. Car Wash Systems</td></tr></table>	Air Gap	1. Fire Protection/Sprinkler System utilizing non-potable water as an alternative or primary source of water	Reduced Pressure Principle Backflow Prevention Assembly	1. Hospitals, Out-Patient Surgical Facilities, Renal Dialysis Facilities, Veterinary Clinics	2. Funeral Homes, Mortuaries	3. Car Wash Systems	Section 1730.28.2 of ACT 836 requires the State Uniform Construction Code to require methods of backflow prevention to prevent contaminated water from flowing back into the public water system. Containment backflow requirements are not contained in the IRC or IPC. Recommend addressing this health concern by amending the IRC and IPC as shown in the adjacent column.	PASSED
Air Gap								
1. Fire Protection/Sprinkler System utilizing non-potable water as an alternative or primary source of water								
Reduced Pressure Principle Backflow Prevention Assembly								
1. Hospitals, Out-Patient Surgical Facilities, Renal Dialysis Facilities, Veterinary Clinics								
2. Funeral Homes, Mortuaries								
3. Car Wash Systems								

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	4. Sewage Facilities			
	5. Chemical or Petroleum Processing Plants			
	6. Animal/Poultry Feedlots or Brooding Facilities			
	7. Meat Processing Plants			
	8. Metal Plating Plants			
	9. Food Processing Plants, Beverage Processing Plants			
	10. Fire Protection/Sprinkler Systems using antifreeze in such system (a detector type assembly is recommended on unmetered fire lines)			
	11. Irrigation/Lawn Sprinkler Systems with Fertilizer Injection			
	12. Marinas/Docks			
	13. Radiator Shops			
	14. Commercial Pesticide/Herbicide Application			
	15. Photo/X-ray/Film Processing Laboratories			
	16. Multiple Commercial Units served by a master meter			
	17. Any type of occupancy type or any other facility having one or more Single-walled Heat Exchangers which uses any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium			
	18. Any type of occupancy type or any other facility having one or more Double-walled Heat Exchangers which use any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium and which does not have a path to atmosphere with a readily visible discharge			
	19. Premises where access/entry is prohibited			
	Pressure Vacuum Breaker Assembly/ Spill Resistant Vacuum Breaker Assembly			
	1. Irrigation/Lawn Sprinkler Systems			
	Double Check Valve Assembly			
	1. Fire Protection/Sprinkler Systems (a detector type double check valve assembly is recommended on unmetered fire lines)			
	2. Two residential dwelling units served by a master meter, unless both units are located on a parcel or contiguous parcels of land having the same ownership and neither unit is used for commercial purposes. As used herein, the term “commercial purposes” means any use other than residential.			
	3. Three or more residential dwelling units served by a master meter			
	4. Multistoried Office/Commercial Buildings (over 3 floors)			
	5. Jails, Prisons, and Other Places of Detention or Incarceration			
	608.18.2 Other containment requirements. Table 608.18.1 of this code above is not inclusive of all potential			

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<p>contamination sources which may need containment protection. For potential contamination sources not listed in this table, backflow prevention methods or devices shall be utilized in accordance with Table B2 and Section 5.3.4.2 of CSA B64.10. When a potential contamination source and its associated backflow prevention method or device is not identified in Table 608.18.1 of this code above or Table B2 and Section 5.3.4.2 of CSA B64.10, backflow prevention methods or devices shall be utilized:</p> <p>i. as directed by the <u>code official</u>; or</p> <p>ii. as directed by the water supplier.</p> <p>In cases of a discrepancy regarding the particular backflow prevention assembly or method required, the assembly or method providing the higher level of protection shall be required.</p> <p>608.4 Water service piping/Containment to protect potable water supplies.</p> <p>Water service piping shall be protected in accordance with <u>Sections 603.2, 603.2.1</u>—Containment to protect potable water supplies shall be achieved in accordance with <u>608.18 through 608.18.2</u>.</p>			
<p>CREATE NEW SECTIONS IN THE 2012 IRC:</p> <p>P2902.7 Containment practices.</p> <p>Backflow prevention methods or devices shall be utilized as directed by the water supplier or <u>building official</u> to isolate specific water supply system customers from the water supply system's mains when such action is deemed necessary to protect the water supply system against potential contamination caused by backflow of water from that part of the water system owned and maintained by the customer (for example, the piping downstream of the water meter, if provided). Minimum requirements shall be in accordance with Section P2902.7.1 through P2902.7.2.</p> <p>P2902.7.1 Containment requirements.</p> <p>As a minimum, the following types of backflow prevention assemblies or methods shall be installed and maintained by water supply system customers immediately downstream of the water meter (if provided) or on the water service pipe prior to any branch line or connections serving the listed customer types and categories.</p> <p>TABLE P2902.7.1 CONTAINMENT REQUIREMENTS</p> <table><tr><td>Air Gap</td></tr></table>	Air Gap	<p>Section 1730.28.2 of ACT 836 requires the State Uniform Construction Code to require methods of backflow prevention to prevent contaminated water from flowing back into the public water system. Containment backflow requirements are not contained in the IRC or IPC. Recommend addressing this health concern by amending the IRC and IPC as shown in the adjacent columns.</p>	TIED
Air Gap			

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<div data-bbox="237 224 1008 280">1. Fire Protection/Sprinkler System utilizing non-potable water as an alternative or primary source of water</div> <div data-bbox="237 280 1008 321">Reduced Pressure Principle Backflow Prevention Assembly</div> <div data-bbox="237 321 1008 394">1. Fire Protection/Sprinkler Systems using antifreeze in such system (a detector type assembly is recommended on unmetered fire lines)</div> <div data-bbox="237 394 1008 435">2. Irrigation/Lawn Sprinkler Systems with Fertilizer Injection</div> <div data-bbox="237 435 1008 524">3. Any type of occupancy type or any other facility having one or more Single-walled Heat Exchangers which uses any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium</div> <div data-bbox="237 524 1008 654">4. Any type of occupancy type or any other facility having one or more Double-walled Heat Exchangers which use any chemical, additive, or corrosion inhibitor, etc., in the heating or cooling medium and which does not have a path to atmosphere with a readily visible discharge</div> <div data-bbox="237 654 1008 695">5. Premises where access/entry is prohibited</div> <div data-bbox="237 695 1008 751">Pressure Vacuum Breaker Assembly/ Spill Resistant Vacuum Breaker Assembly</div> <div data-bbox="237 751 1008 792">1. Irrigation/Lawn Sprinkler Systems</div> <div data-bbox="237 792 1008 833">Double Check Valve Assembly</div> <div data-bbox="237 833 1008 906">1. Fire Protection/Sprinkler Systems (a detector type double check valve assembly is recommended on unmetered fire lines)</div> <div data-bbox="237 906 1008 1060">2. Two residential dwelling units served by a master meter, unless both units are located on a parcel or contiguous parcels of land having the same ownership and neither unit is used for commercial purposes. As used herein, the term “commercial purposes” means any use other than residential.</div> <div data-bbox="237 1060 1008 1101">3. Three or more residential dwelling units served by a master meter</div> <div data-bbox="237 1125 1008 1451"> <p>P2902.7.2 Other containment requirements. Table P2902.7.1 of this code above is not inclusive of all potential contamination sources which may need containment protection. For potential contamination sources not listed in this table, backflow prevention methods or devices shall be utilized in accordance with Table B2 and Section 5.3.4.2 of CSA B64.10. When a potential contamination source and its associated backflow prevention method or device is not identified in Table P2902.7.1 of this code above or Table B2 and Section 5.3.4.2 of CSA B64.10, backflow prevention methods or devices shall be utilized:</p> <p>i. as directed by the <u>building official</u>; or</p> </div>		

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<p>ii. as directed by the water supplier. In cases of a discrepancy regarding the particular backflow prevention assembly or method required, the assembly or method providing the higher level of protection shall be required.</p>		
<p>608.1 General. A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventers shall conform to the applicable Standard referenced in Table 608.1. Backflow preventer applications shall conform to Table 608.1, except as specifically stated in Sections 608.2 through 608.16.4027 and Sections 608.18 through 608.18.2.</p>	<p>Amend this section to reflect the changes/additions throughout.</p>	<p>PASSED</p>
<p>CODE BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. [A]</p>	<p>This was discussed in a previous meeting but the discussion was postponed until we ran across these terms in other chapters as they applied. The defined term of “code official” needs to be deleted here and replaced with the word “building official”. In addition, the word “administration” needs to be removed because the “building official” only enforces the code. The term “Louisiana State Uniform Construction Code” (LSUCCC)” should be added and defined using the text currently describing the “code official”. Under Act 836 of 2014, the “building official” for the parish, municipality, or regional planning commission is authorized to “enforce” the plumbing code; however, an earlier version of proposed HB 1048 did allow the building official to interpret the code. Later iterations of the law amended the bill to basically require interpretation and administration of the plumbing code to be left to the LSUCCC itself on a state level so that you would not have 358 (or whatever the number of entities the LSUCCC oversees) different jurisdiction interpretations. However, just reading Act 386 of 2014 does not make this clear. It should be made clear by amending the IPC. Many, but not all, references to “code official” throughout the document needs to be changed to “building official”. In certain instances, “code official” needs to be changed to “Louisiana State Uniform Construction Code (LSUCCC)”.</p>	<p>FAILED</p>

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<p>605.3.1 Dual check-valve-type backflow preventer. Dual check-valve backflow preventers installed on the water supply system shall comply with ASSE 1024 or CSA B64.6. These devices, which are commonly installed immediately downstream of water meters by water suppliers, are not approved backflow prevention devices and are only allowed to be installed when no cross connections exist downstream of the device or when all downstream cross connections are properly protected by approved backflow prevention devices, assemblies, or methods in accordance with Section 608 of this code.</p>	<p>Similar to the revision for Section 608.6 of the IPC, also recommend a revision to Section 605.3.1 of the IPC to ensure the provision is not overlooked. Dual check valves are commonly installed by water systems during meter replacements. They offer some protection but are not a testable device so they are not approved for BF protection. They can be installed if a customer or water supplier so desires but only if there are no cross connections downstream of the device or the appropriate level of protection is provided for the cross connections that exist on the premises. Recommend amending section to reduce confusion and prevent this device from being used in an application where it won't provide adequate protection.</p>	<p>TIED</p>
<p>B64.10— Manual for the Selection and Installation of 0711 Backflow Prevention Devices Preventers 312.10.2 608.16, 608.18.2</p> <p>B64.10.1— Manual for the Selection, Installation, 0411 Maintenance and Field Testing of Backflow Prevention Devices Preventers 312.10.2</p> <p>CSA B64.10— Selection and Installation of Backflow 11 Preventers P2902.7.2</p> <p>CSA Maintenance and Field Testing of B64.10.1—11 Backflow Preventers P2902.8.2</p>	<p>Recommend updating Chapter 14 of the IPC and Chapter 44 of the IRC to adopt the newest edition of CSA B64.10-11/B64.10.1-11 Selection of Backflow Preventers and the Maintenance/Field Testing Requirements.</p> <p>RECOMMEND REVISING CHAPTER 14 OF THE 2012 IPC AS FOLLOWS</p> <p>RECOMMEND ADOPTING THE FOLLOWING STANDARDS INTO CHAPTER 44 OF THE 2012 IRC AS FOLLOWS</p>	<p>TABLED;</p> <p>Note: PTC wants to compare the difference between the Standards</p>
<p>608.16 Connections to the potable water system. Connections to the potable water system shall conform to <u>Sections 608.16.1 through 608.16.4027</u>. These Sections (608.16.1 – 608.16.27) are not inclusive of all potential contamination sources which may need fixture isolation protection. For potential contamination sources not listed in Sections 608.16.1 through 608.16.27, backflow prevention methods or devices shall be utilized in accordance with Table B1 and Table 2 of CSA B64.10. When a potential contamination source and its associated backflow prevention method or device is not identified in this code or Table B1 and Table 2 of CSA B64.10, backflow</p>		<p>TABLED;</p> <p>Note: PTC wants to compare the difference between the Standards</p>

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prevention methods or devices shall be utilized as directed by the <u>building official</u> .		
<p>BAROMETRIC LOOP. A fabricated piping arrangement rising at least 35 feet at its topmost point above the highest <i>fixture</i> it supplies. It is utilized in <i>water supply systems</i> to protect against <i>backsiphonage backflow</i>.</p> <p>BY-PASS. Any system of piping or other arrangement whereby the water may be diverted around any part or portion of the water supply system including, but not limited to, around an installed backflow preventer.</p> <p>DEGREE OF HAZARD. An evaluation of the potential risk to public health if the public were to be exposed to contaminated water caused by an unprotected or inadequately protected <i>cross connection</i>.</p> <p>DUAL CHECK VALVE. A device having two spring loaded, independently operated check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter. Not an approved backflow prevention device.</p> <p>FIXTURE ISOLATION. A method of backflow prevention in which a <i>backflow preventer</i> is located to protect the <i>potable water</i> of a <i>water supply system</i> against a <i>cross connection</i> at a <i>fixture</i> located within the <i>structure</i> or premises itself.</p> <p>MASTER METER. A water meter serving multiple residential dwelling units or multiple commercial units. Individual units may or may not be sub-metered.</p>	ADD THESE DEFINITIONS TO CHAPTER 2 OF THE 2012 IPC AND THE 2012 IRC	PASSED
CHAPTER 7 – SANITARY DRAINAGE		
<p>INDIVIDUAL SEWAGE DISPOSAL SYSTEM. A system for disposal of domestic sewage by means of a septic tank, <u>cesspool</u> or mechanical treatment, designed for utilization apart from a <u>public sewer</u> to serve a single establishment or building.</p> <p>INDIVIDUAL SEWERAGE SYSTEM. Any system of piping (excluding the building drain and building sewer), and/or collection and/or transport system which serves one or more connections, and/or pumping facility, and treatment facility, all located on the property where the sewage originates; and which utilizes the individual sewerage system technology which is set forth in LAC 51:XIII.Chapter 7.Subchapter B, or a commercial treatment facility which is specifically authorized for use by the state health officer.</p>	<p>DELETE and ADD definitions from Section 202 (General Definitions) of the 2012 IPC.</p> <p>Recommend amending the IPC as shown in the adjacent cell to ensure individual sewerage systems are defined and designed in accordance with the state minimum requirements contained in LAC 51:XIII. Cesspools are not allowed under LAC 51:XIII.</p> <p>From LSPC (LAC 51:XIII):</p> <p>The term “public sewer”, as defined under “Sewer.” in Chapter</p>	TIED

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<p>COMMERCIAL TREATMENT FACILITY. Any treatment facility which is required by the state health officer whenever the use of an individual sewerage system is unfeasible or not authorized.</p> <p>COMMUNITY SEWERAGE SYSTEM. Any <i>sewerage system</i> which serves multiple connections and consists of a collection and/or pumping system/transport system and treatment facility.</p> <p>701.2 Sewer required. Buildings in which plumbing fixtures are installed and premises having sanitary drainage system piping shall be connected to a public sewer<i>community sewerage system</i>, where available, or an approved private sewage disposal system<i>commercial treatment facility or individual sewerage system</i> in accordance with the International Private Sewage Disposal Code meeting the requirements of LAC 51:XIII.(Sewage Disposal).</p>	<p>2 only recognizes facilities controlled by a public authority. There are many subdivisions where the subdivision owner controls the community sewer system and the subdivision owner is not a public authority. For this reason then recommend adding definitions of “commercial treatment facility” and “community sewerage system” from LAC 51:XIII be inserted into Section 2 (General Definitions) of the 2012 IPC. As the IPC covers more than just residences, the addition of these definitions would cover individual, commercial, and community sewerage systems that a particular building would be allowed to connect to. Any other reference throughout the Code relative to “public sewer” likely needs to be amended.</p>	
<p>701.2 Sewer required. Buildings in which plumbing fixtures are installed and premises having drainage piping shall be connected to a <i>public sewer</i>, where available, or an approved private sewage disposal system in accordance with the International Private Sewage Disposal Code meeting the requirements of LAC 51:XIII.(Sewage Disposal).</p>		PASSED
<p>701.3 Separate Sewer Connection. A building having plumbing fixtures installed and intended for human habitation, occupancy or use on premises abutting on a street, alley or easement in which there is a public sewer<i>community sewerage system</i> shall have a separate connection with the <i>sanitary sewer</i>. Where located on the same lot, multiple buildings shall not be prohibited from connecting to a common <i>sanitary building sewer</i> that connects to the building sewer<i>community sewerage system</i>.</p>	<p>Recommend amending the IPC as shown in the adjacent cell to ensure consistent use of terms in the IPC.</p>	TIED
<p>INDIVIDUAL SEWAGE DISPOSAL SYSTEM. A system for disposal of domestic sewage by means of a septic tank or mechanical treatment, designed for use apart from a public sewer to serve a single establishment or building.</p> <p>INDIVIDUAL SEWERAGE SYSTEM. Any system of piping (excluding the building drain and building sewer), and/or collection and/or transport system which serves one or more connections, and/or pumping facility, and treatment facility, all located on the property where the sewage originates; and which utilizes the individual sewerage system technology which is set forth in LAC 51:XIII.Chapter 7.Subchapter B, or a commercial treatment facility which is</p>	<p>Amend the following definition from Section 202 (General Definitions) of the 2012 IRC.</p> <p>Recommend amending the IPC as shown in the adjacent cell to ensure individual sewerage systems are defined and designed in accordance with the state minimum requirements contained in LAC 51:XIII. Cesspools are not allowed under LAC 51:XIII. From LSPC (LAC 51:XIII):</p>	TABLED

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<p>specifically authorized for use by the state health officer.</p> <p>COMMERCIAL TREATMENT FACILITY. Any treatment facility which is required by the state health officer whenever the use of an individual sewerage system is unfeasible or not authorized.</p> <p>COMMUNITY SEWERAGE SYSTEM. Any <i>sewerage system</i> which serves multiple connections and consists of a collection and/or pumping system/transport system and treatment facility.</p>	<p>The term “public sewer”, as defined under “Sewer.” in Chapter 2 only recognizes facilities controlled by a public authority. There are many subdivisions where the subdivision owner controls the community sewer system and the subdivision owner is not a public authority. For this reason then recommend adding definitions of “commercial treatment facility” and “community sewerage system” from LAC 51:XIII be inserted into Section 2 (General Definitions) of the 2012 IRC. As the IRC covers more than just single family residences, the addition of these definitions would cover individual, commercial, and community sewerage systems that a particular building would be allowed to connect to. “Individual sewerage system” only covers those facilities which generate 1,500 gpd or less; therefore, the term “commercial treatment facility” would also be applicable in the IRC when several residences may waste into a single treatment facility which is designed to handle over 1,500 gpd (and a community sewerage system is not available). Any other reference throughout the Code relative to “public sewer” likely needs to be amended.</p>	
<p>701.8 Engineered systems. Engineered sanitary drainage systems shall conform to the provisions of Section 316 and 714. <i>Single stack plumbing systems may be considered for approval by the code official for use on the upper floors of hotel and motel guest rooms but shall not be approved for condominium or apartment complexes.</i></p>	<p>Single stack plumbing systems should not be allowed whenever there will be a substantial grease load into the system. Additionally, after construction, a condominium owner could hire any plumber he so chooses to alter his engineered designed plumbing system and the integrity of such system after construction may cause health-related problems. Even though apartment complexes are normally owned by a single entity, a large grease load can be expected coming from apartments (especially because the renter is not an owner of the apartment). Proper installation of a single stack plumbing system on upper floors of hotel and motel guest rooms (again, single entity owner normally) is acceptable. Most guests will not be cooking in their hotel or motel guest room and it will normally be a regular sanitary sewer discharge, without any significant grease. Lower levels of the hotel or motel should be installed using normal, prescriptive plumbing practices.</p>	TIED
<p>701.9 Drainage piping in food service areas. Exposed soil or waste piping, <i>including vacuum drainage systems</i>, shall not be</p>		PASSED

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installed above any working food preparation areas, food or utensil storage areas or eating surfaces in food service establishments unless they are adequately shielded to intercept potential drips.														
702.5 Chemical waste system. A chemical waste system shall be completely separated from the sanitary drainage system. The chemical waste shall be treated in accordance with Section 803.2 before discharging to the sanitary drainage system. Separate drainage systems for chemical wastes and vent pipes shall be of an approved material that is resistant to corrosion and degradation for the concentrations of chemicals involved. Chemical waste piping for drainage systems shall be of a high silicon cast iron complying with ASTM A 518/A 518M, borosilicate glass complying with ASTM C 1053, chlorinated poly (vinyl chloride) (CPVC) complying with ASTM F 2618, polyolefin pipe complying with ASTM F 1412, polyvinylidene fluoride (PVDF) complying with ASTM F 1673, or other materials approved by the plumbing official. The material shall be resistant to corrosion and degradation for the concentrations of chemicals involved. Joints shall be made in conformance with the manufacturer's recommendations.	Recommend listing appropriate corrosion resistant drainage piping Standards in Section 702.5 of the IPC which will reduce the potential for standard, non-corrosion resistant, DWV piping to be utilized on chemical waste systems.	PASSED; PTC created TABLE 702.5 to include the Standards for chemical waste												
703.6 Minimum Size Building Sewer. No building sewer shall be less than 4 inches in size with the exception of force lines. P3001.4 Minimum Size Building Sewer. No building sewer shall be less than 4 inches in size with the exception of force lines.	Recommend adding new Sections to the IPC and IRC to ensure all building sewers are a minimum of 4-inches. 705.F. Minimum Size Building Sewer. No building sewer shall be less than 4 inches in size with the exception of force lines.	PASSED												
706.2 Obstructions. A fitting or connection which offers abnormal obstruction to flow shall not be permitted. The Any fittings or connection which has an enlargement, chamber, or recess with a shall not have ledges, shoulders or reductions of pipe area capable of retarding or obstructing flow in the drainage piping is prohibited. Threaded drainage pipe fittings shall be of the recessed drainage type. This section shall not be applicable to tubular waste fittings used to convey vertical flow upstream of the trap seal liquid level of a fixture trap. The enlargement of a 3-inch closet bend or stub to 4 inches shall not be considered an obstruction. TABLE 706.3 FITTINGS FOR CHANGE IN DIRECTION <table><tr><th></th><th colspan="3">CHANGE IN DIRECTION</th></tr><tr><th>TYPE OF FITTING PATTERN</th><th>Horizontal to vertical</th><th>Vertical to horizontal</th><th>Horizontal to horizontal</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>		CHANGE IN DIRECTION			TYPE OF FITTING PATTERN	Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal					Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages. LAC 51:XIV. §311. Fittings B. Short Sweeps. Short sweeps not less than 3-inch diameter may be used in soil and waste lines where the change in direction of flow is from the horizontal to the vertical and may be used for making necessary offsets between the ceiling and the next floor above. C. Prohibited Fittings. A straight tee branch shall not be used as a drainage fitting. A saddle type fitting or running threads shall not be used in the drainage or vent system. Drainage or vent piping shall not be drilled or tapped unless approved by the plumbing official. A fitting having a hub in the direction opposite to flow shall not be used in the drainage system, unless the pipe is cut by either a saw or snap cutter, which will assure clean, smooth cuts	FAILED
	CHANGE IN DIRECTION													
TYPE OF FITTING PATTERN	Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal											

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Sixteenth bend	X	X	X	<p>of the pipe. Double sanitary tee pattern fittings shall not receive the discharge of fixtures or appliances with pumping action discharge.</p> <p>D. Heel or Side Inlet Bend Prohibited. Heel or side inlet quarter bend fittings shall not be used in the drainage or vent system.</p> <p>F. Obstruction to Flow. A fitting or connection which offers abnormal obstruction to flow shall not be permitted. See §715 of this code.</p> <p>G. Increases and Reducers. Where different sizes of pipes or pipes and fittings are to be connected, the proper size increasers or reducers or reducing fittings shall be used between the two sizes.</p>	
Eighth bend	X	X	X		
Sixth bend	X	X	X		
Quarter bend	X	X ^a	X ^a		
Short sweep	X ^{b,d}	X^{a,b}	X^a		
Long sweep	X	X	X		
Sanitary tee	X ^{c,e}	—	—		
Wye	X	X	X		
Combination wye and eighth bend	X	X	X		
<p>For SI: 1 inch = 25.4 mm</p> <p>a. The fittings shall only be permitted for a 2-inch or smaller fixture drain.</p> <p>b. Three inches or larger.</p> <p>c. For a limitation on double sanitary tees, see Section 706.3.</p> <p>d. Also allowed for offsets between the ceiling and the next floor above.</p> <p>e. Shall not be used on a horizontal drainage line as a takeoff fitting for a vent.</p>					
<p>706.4 Heel or side inlet quarter bends.</p> <p>Heel inlet quarter bends shall be an acceptable means of connection, except where the quarter bend serves a water closet. A low heel inlet shall not be used as a wet-vented connection. Side inlet quarter bends shall be an acceptable means of connection for drainage, wet venting and stack venting arrangements.</p>				Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages.	TIED
<p>SECTION 707 PROHIBITED FITTINGS, JOINTS AND CONNECTIONS</p> <p>707.1 Prohibited fittings, joints and connections.</p>				Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages.	FAILED

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<p>The following types of fittings, joints and connections shall be prohibited:</p> <ol style="list-style-type: none">1. Cement or concrete joints.2. Mastic or hot-pour bituminous joints.3. Joints made with fittings not approved for the specific installation.4. Joints between different diameter pipes made with elastomeric rolling O-rings.5 Solvent-cement joints between different types of plastic pipe.6. Saddle-type fittings.7. A straight tee branch shall not be used as a drainage fitting.8. Heel or side inlet quarter bend fittings shall not be used in the drainage or vent system.9. Drainage or vent piping shall not be drilled or tapped unless approved by the plumbing official.10. A fitting having a hub in the direction opposite to flow shall not be used in the drainage system, unless the pipe is cut by either a saw or snap cutter, which will assure clean, smooth cuts of the pipe.11. Running threads and bands shall not be used in the drainage system. <p>707.3 Increasesers and Reducers. Where different sizes of pipes or pipes and fittings are to be connected, the proper size increasers or reducers or reducing fittings shall be used between the two sizes.</p>	<p>LAC 51:XIV. §311. Fittings</p> <p>B. Short Sweeps. Short sweeps not less than 3-inch diameter may be used in soil and waste lines where the change in direction of flow is from the horizontal to the vertical and may be used for making necessary offsets between the ceiling and the next floor above.</p> <p>C. Prohibited Fittings. A straight tee branch shall not be used as a drainage fitting. A saddle type fitting or running threads shall not be used in the drainage or vent system. Drainage or vent piping shall not be drilled or tapped unless approved by the plumbing official. A fitting having a hub in the direction opposite to flow shall not be used in the drainage system, unless the pipe is cut by either a saw or snap cutter, which will assure clean, smooth cuts of the pipe. Double sanitary tee pattern fittings shall not receive the discharge of fixtures or appliances with pumping action discharge.</p> <p>D. Heel or Side Inlet Bend Prohibited. Heel or side inlet quarter bend fittings shall not be used in the drainage or vent system.</p> <p>F. Obstruction to Flow. A fitting or connection which offers abnormal obstruction to flow shall not be permitted. See §715 of this code.</p> <p>G. Increasesers and Reducers. Where different sizes of pipes or pipes and fittings are to be connected, the proper size increasers or reducers or reducing fittings shall be used between the two sizes.</p>																																				
<p>TABLE P3005.1 FITTINGS FOR CHANGE IN DIRECTION</p> <table><tr><th rowspan="2">TYPE OF FITTING PATTERN</th><th colspan="3">CHANGE IN DIRECTION</th></tr><tr><th>Horizontal to vertical</th><th>Vertical to horizontal</th><th>Horizontal to horizontal</th></tr><tr><td>Sixteenth bend</td><td>X</td><td>X</td><td>X</td></tr><tr><td>Eighth bend</td><td>X</td><td>X</td><td>X</td></tr><tr><td>Sixth bend</td><td>X</td><td>X</td><td>X</td></tr><tr><td>Quarter bend</td><td>X</td><td>X^a</td><td>X^a</td></tr><tr><td>Short sweep</td><td>X^{b,d}</td><td>X^{a,b}</td><td>X^a</td></tr><tr><td>Long sweep</td><td>X</td><td>X</td><td>X</td></tr><tr><td>Sanitary tee</td><td>X^{c,e}</td><td>—</td><td>—</td></tr></table>	TYPE OF FITTING PATTERN	CHANGE IN DIRECTION			Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal	Sixteenth bend	X	X	X	Eighth bend	X	X	X	Sixth bend	X	X	X	Quarter bend	X	X ^a	X ^a	Short sweep	X ^{b,d}	X ^{a,b}	X ^a	Long sweep	X	X	X	Sanitary tee	X ^{c,e}	—	—	<p>Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages.</p>	<p>FAILED</p>
TYPE OF FITTING PATTERN		CHANGE IN DIRECTION																																			
	Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal																																		
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Wye	X	X	X		
Combination wye and eighth bend	X	X	X		
<p>For SI: 1 inch = 25.4 mm.</p> <p>a. The fittings shall only be permitted for a 2-inch or smaller fixture drain.</p> <p>b. Three inches and larger.</p> <p>c. For a limitation on multiple connection fittings, see Section P3005.1.1.</p> <p>d. Also allowed for offsets between the ceiling and the next floor above.</p> <p>e. Shall not be used on a horizontal drainage line as a takeoff fitting for a vent.</p>					
<p>P3005.1.2 Heel or side inlet quarter bends, drainage. Heel inlet quarter bends shall be an acceptable means of connection, except where the quarter bends serves a water closet. A low heel inlet shall not be used as a wet-vented connection. Side inlet quarter bends shall be an acceptable means of connection for both drainage, wet venting and stack venting arrangements.</p> <p>P3005.1.3 Heel or side inlet quarter bends, venting. Heel inlet or side inlet quarter bends, or any arrangement of pipe and fittings producing a similar effect, shall be acceptable as a dry vent where the inlet is placed in a vertical position. The inlet is permitted to be placed in a horizontal position only where the entire fitting is part of a dry vent arrangement.</p>				Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages.	FAILED
<p>P3003.2 ProhibitedFittings, joints and connections. Running threads and bands shall not be used in the drainage system. Drainage and vent piping shall not be drilled, tapped, burned or welded.</p> <p>The following types of joints and connections shall be prohibited:</p> <ol style="list-style-type: none"> 1. Cement or concrete. 2. Mastic or hot-pour bituminous joints. 3. Joints made with fittings not <i>approved</i> for the specific installation. 4. Joints between different diameter pipes made with elastomeric rolling O-rings. 5. Solvent-cement joints between different types of plastic pipe. 6. Saddle-type fittings. 7. A straight tee branch shall not be used as a drainage fitting. 8. Heel or side inlet quarter bend fittings shall not be used in the drainage or vent system. 9. Drainage or vent piping shall not be drilled or tapped unless approved by the 				Recommend amending the IPC and IRC to prohibit the use of various fittings with short turns which can choke flow and cause sewer blockages.	FAILED

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<p>plumbing official.</p> <p>10. A fitting having a hub in the direction opposite to flow shall not be used in the drainage system, unless the pipe is cut by either a saw or snap cutter, which will assure clean, smooth cuts of the pipe.</p> <p>P3003.2.1 Obstruction to Flow. A fitting or connection which offers abnormal obstruction to flow shall not be permitted. Any fittings or connection which has an enlargement, chamber, or recess with a ledge, shoulders or reductions of pipe area capable of retarding or obstructing flow in the drainage piping is prohibited. Threaded drainage pipe fittings shall be of the recessed drainage type. This section shall not be applicable to tubular waste fittings used to convey vertical flow upstream of the trap seal liquid level of a fixture trap. The enlargement of a 3-inch closet bend or stub to 4 inches shall not be considered an obstruction.</p> <p>P3003.2.2 Increases and Reducers. Where different sizes of pipes or pipes and fittings are to be connected, the proper size increasers or reducers or reducing fittings shall be used between the two sizes.</p>		
<p>708.3 Where required.</p> <p>Cleanouts shall be located in accordance with Sections 708.3.1 through 708.3.6.</p> <p>708.3.1 Horizontal drains within buildings.</p> <p>All horizontal drains shall be provided with cleanouts located not more than 100 feet (30 480 mm) apart. Horizontal drains within buildings shall be provided with cleanouts as follows:</p> <ol style="list-style-type: none"> 1. All horizontal drains 3-inch nominal diameter or less, cleanouts shall be located at not more than 50 feet (15 200mm) intervals. 2. For horizontal drains 4-inch nominal diameter through 6-inch nominal diameter, cleanouts shall be located at not more than 80 feet (24 400mm) intervals. 3. Horizontal drains larger than 6-inch nominal diameter shall be provided with cleanouts located at not more than 100 feet (30 480 mm) intervals. <p>708.3.2 Building sewers.</p> <p>Building sewers 4-inch nominal diameter through 6-inch nominal diameter shall be provided with cleanouts located not more than 100 feet (30 480 mm) 80 feet (24 400mm) apart measured from the upstream entrance of the cleanout. For building sewers 8 inches (203 mm) and larger, manholes shall be provided and located not more</p>	<p>Recommend amending the IPC and IRC as shown in the adjacent cell which will ensure cleanouts are provided at appropriate intervals. This will make the drainage system more accessible for maintenance and line cleaning and will help prevent costly repairs for home and business owners.</p> <p>LAC 51:XIV. §717. Cleanouts</p> <p>A. Material and Design. The bodies of cleanout ferrules shall conform in thickness to that required for pipe and fittings of the same material, and they shall extend not less than 1/4-inch (6.35 mm) above the hub. For new work, the cleanout plug shall be of heavy brass or plastic not less than 1/8-inch (3.18 mm) thick and shall be provided with a raised nut or a recessed socket for removal. Both ferrule and plug shall have ASME standard tapered pipe threads. Heavy lead plugs may be used for repairing a cleanout where necessary. Nylon plastics may be used as an alternate material.</p> <p>B. Location. The location of cleanouts shall comply with the following:</p> <ol style="list-style-type: none"> 1. Each horizontal drainage pipe shall be provided with a cleanout at the upstream end of the pipe and in changes of direction over 45° (0.785 rad). 	<p>PASSED</p>

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<p>than 200 feet (60 960 mm) from the junction of the <i>building drain</i> and <i>building sewer</i>, at each change in direction and at intervals of not more than 400 feet (122 m) apart. Manholes and manhole covers shall be of an <i>approved</i> type.</p> <p>708.3.3 Changes of direction. Cleanouts shall be installed at each change of direction greater than 45 degrees (0.79 rad) in the <i>building sewer</i>, <i>building drain</i> and horizontal waste or soil lines. Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each 40 feet (12 192 mm) of <i>developed length</i> of the drainage piping. Each horizontal drainage pipe shall be provided with a cleanout at the upstream end of the pipe and in changes of direction over 45° (0.785 rad). Exceptions. The following plumbing arrangements are acceptable in lieu of the upstream cleanout: i. "P" traps connected to the drainage piping with slip joints or ground joint connections; ii. "P" traps into which floor drains, shower drains or tub drains with removable strainers discharge; iii. "P" traps into which the straight through type waste and overflow discharge with the overflow connecting to the branch of the tee; iv. "P" traps into which residential washing machines discharge; v. test tees or cleanouts in a vertical pipe above the flood-level rim of the fixtures that the horizontal pipe serves and not more than 4-feet (1219 mm) above the finish floor.</p> <p>708.3.4 Base of stack. A cleanout shall be provided at the base of each waste or soil <i>stack</i>.</p> <p>708.3.5 Building drain and building sewer junction. There shall be a cleanout near within 6 feet (1829 mm) of the junction of the <i>building drain</i> and the <i>building sewer</i>. The cleanout shall be either inside or outside the building wall and shall be brought up to the finished ground level or to the basement floor level. An <i>approved</i> two-way cleanout is allowed to be used at this location to serve as a required cleanout for both the <i>building drain</i> and <i>building sewer</i>. The cleanout at the junction of the <i>building drain</i> and <i>building sewer</i> shall not be required if the cleanout on a 3-inch (76 mm) or larger diameter soil <i>stack</i> is located within a <i>developed length</i> of 10 feet (3048 mm) of the <i>building drain</i> and <i>building sewer</i> connection. The minimum size of the cleanout at the junction of the <i>building drain</i> and <i>building sewer</i> shall</p>	<p>a. Exceptions. The following plumbing arrangements are acceptable in lieu of the upstream cleanout: i. "P" traps connected to the drainage piping with slip joints or ground joint connections; ii. "P" traps into which floor drains, shower drains or tub drains with removable strainers discharge; iii. "P" traps into which the straight through type waste and overflow discharge with the overflow connecting to the branch of the tee; iv. "P" traps into which residential washing machines discharge; v. test tees or cleanouts in a vertical pipe above the flood-level rim of the fixtures that the horizontal pipe serves and not more than 4-feet (1219 mm) above the finish floor; f. cleanout within 6-feet (1829 mm) of the junction of the building drain and the building sewer which may be rodded both ways; and, g. water closets for the water closet fixture branch only.</p> <p>2. Each building drain shall be provided with a cleanout within 6-feet (1829 mm) of the junction of the building drain and building sewer.</p> <p>3. Cleanouts when installed in accordance with §717.B.2 of this code may be either outside the building or when inside the building they shall be above the flood-level rim of the fixtures that the horizontal pipe serves when installed on a soil or waste stack.</p> <p>4. In addition to the upstream cleanout and the cleanout of the junction of the building drain and building sewer, cleanouts shall be located along the horizontal piping so that: a. In pipe 3-inch nominal diameter or less, cleanouts shall be located at not more than 50 ft (15.2 m) intervals; and, b. In pipe 4 inches nominal diameter through 6 inches nominal diameter, cleanouts shall be located at not more than 80 ft (24.4 m) intervals.</p>	

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<p>comply with Section 708.7.</p> <p>P3005.2.2 Spacing Horizontal Drains within buildings. Cleanouts shall be installed not more than 100 feet (30 480 mm) apart in horizontal drainage lines measured from the upstream entrance of the cleanout. Horizontal drains within buildings shall be provided with cleanouts as follows:</p> <ol style="list-style-type: none"> 1. All horizontal drains 3-inch nominal diameter or less, cleanouts shall be located at not more than 50 feet (15 200mm) intervals. 2. For horizontal drains 4-inch nominal diameter through 6-inch nominal diameter, cleanouts shall be located at not more than 80 feet (24 400mm) intervals. 3. Horizontal drains larger than 6-inch nominal diameter shall be provided with cleanouts located at not more than 100 feet (30 480 mm) intervals. <p>P3005.2.4 Change of direction. Cleanouts shall be installed at each fitting with a change of direction more than 45 degrees (0.79 rad) in the building sewer, building drain and horizontal waste or soil lines. Where more than one change of direction occurs in a run of piping, only one cleanout shall be required in each 40 feet (12 192 mm) of developed length of the drainage piping. Each horizontal drainage pipe shall be provided with a cleanout at the upstream end of the pipe and in changes of direction over 45° (0.785 rad).</p> <p>Exceptions. The following plumbing arrangements are acceptable in lieu of the upstream cleanout:</p> <ol style="list-style-type: none"> i. "P" traps connected to the drainage piping with slip joints or ground joint connections; ii. "P" traps into which floor drains, shower drains or tub drains with removable strainers discharge; iii. "P" traps into which the straight through type waste and overflow discharge with the overflow connecting to the branch of the tee; iv. "P" traps into which residential washing machines discharge; v. test tees or cleanouts in a vertical pipe above the flood-level rim of the fixtures that the horizontal pipe serves and not more than 4-feet (1219 mm) above the finish floor. <p>P3005.2.7 Building drain and building sewer junction. There shall be a cleanout near within 6 feet (1829 mm) of the junction of the building drain and building sewer. This cleanout shall be either inside or outside the building wall, provided that it is brought up to finish grade or to the lowest</p>		

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2012 INTERNATIONAL CODES (IPC and IRC)					DHH COMMENTS, CODES AND CONCERNS		PTC ACTION																																								
floor level. An <i>approved</i> two-way cleanout shall be permitted to serve as the required cleanout for both the <i>building drain</i> and the <i>building sewer</i> . The cleanout at the junction of the <i>building drain</i> and <i>building sewer</i> shall not be required where a cleanout on a 3-inch (76 mm) or larger diameter soil stack is located within a developed length of 10 feet (3048 mm) of the <i>building drain</i> and <i>building sewer</i> junction.																																															
<p>710.1 Maximum fixture unit load.</p> <p>The maximum number of drainage fixture units connected to a given size of <i>building sewer</i>, <i>building drain</i> or horizontal <i>branch</i> of the <i>building drain</i> shall be determined using Table 710.1(1). The maximum number of drainage fixture units connected to a given size of horizontal branch or vertical soil or waste <i>stack</i>, or horizontal branch connecting to a vertical soil or waste stack, shall be determined using Table 710.1(2).</p> <p style="text-align: center;">TABLE 710.1(1) BUILDING DRAINS AND SEWERS</p> <table><tr><th rowspan="3">DIAMETER OF PIPE (inches)</th><th colspan="4">MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN^a</th></tr><tr><th colspan="4">Slope per foot</th></tr><tr><th>1/16 inch</th><th>1/8 inch</th><th>1/4 inch</th><th>1/2 inch</th></tr><tr><td>...</td><td>...</td><td>...</td><td>...</td><td>...</td></tr><tr><td>3</td><td>—</td><td>36 (not over two water closets)</td><td>42 (not over two water closets)</td><td>50 (not over two water closets)</td></tr><tr><td>...</td><td>...</td><td>...</td><td>...</td><td>...</td></tr></table> <p style="text-align: center;">TABLE 710.1(2) HORIZONTAL FIXTURE BRANCHES AND STACKS^a</p> <table><tr><th rowspan="3">DIAMETER OF PIPE</th><th colspan="4">MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS (dfu)</th></tr><tr><th rowspan="2">Total for horizontal</th><th colspan="3">Stacks^b</th></tr><tr><th>Total</th><th>Total for stack</th><th>Total for</th></tr></table>					DIAMETER OF PIPE (inches)	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN ^a				Slope per foot				1/16 inch	1/8 inch	1/4 inch	1/2 inch	3	—	36 (not over two water closets)	42 (not over two water closets)	50 (not over two water closets)	DIAMETER OF PIPE	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS (dfu)				Total for horizontal	Stacks ^b			Total	Total for stack	Total for	<p>Amend the IPC and IRC as shown in the adjacent cell to ensure there is enough air space in the drainage system to prevent positive and/or negative pressures from generating in the system which would destroy trap seals, allowing sewer gas to enter a building/dwelling. Also, DHH recommends adoption of notations within the tables to address the proper sizing of circuit or battery vented branches based on limiting the load to 50% of the dfu normally allowed. Other notations relate to a limit on the number of water closets, particularly on 3” building drains, building drain branches, building sewers, horizontal branches and stacks.</p> <p>LAC 51:XIV §725. Drainage System Sizing</p> <p>A. Maximum Fixture Unit Load. The maximum number of fixture units that may be connected to a given size of building sewer, building drain, or horizontal branch of the building drain shall be determined using Table 725.A.1 of this code below. The maximum number of fixture units that may be connected to a given size vertical soil or waste stack, or a horizontal branch connecting to a vertical soil or waste stack, is given in Table 725.A.2 of this code.</p> <p>B. Minimum Size of Soil and Waste Stacks. No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 water closet connection shall not be considered as a reduction in pipe size. The soil or waste stack shall run undiminished in size from its connection to the building drain to its connection to the stack vent.</p> <p>C. Future Fixtures. When provision is made for the future installation of fixtures, those provided for shall be considered in determining the required sizes of drain pipes. Construction to provide for such future installation shall be terminated with a plugged fitting or fittings at the stack so as to form no dead end.</p> <p>D. Underground Drainage Piping. Any portion of the</p>		<p>PASSED</p>
DIAMETER OF PIPE (inches)	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN ^a																																														
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(inches) (The minimum size of any branch or stack serving a water closet shall be 3".)	branch (Does not include branches of the building drain. Use 50 percent less dfu's for any circuit or battery vented fixture branches, no size reduction permitted for circuit or battery vented branches throughout the entire branch length.)	discharge into one branch interval when greater than three branch intervals	of when three branch intervals or less	stack when greater than three branch intervals	drainage system installed underground or below a basement or cellar shall not be less than 2-inch diameter. In addition, any portion of the drainage system installed underground which is located upstream from a grease trap or grease interceptor as well as the underground horizontal branch receiving the discharge there from shall not be less than 3-inch diameter.	
...		
3	20 (not over two water closets)	20 16 (not over two water closets)	48 30 (not over six water closets)	72 60 (not over six water closets)		
...		
710.1.3 Minimum size of soil and waste stacks. No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 water closet connection shall not be considered as a reduction in pipe size. The soil or waste stack shall run undiminished in size from its connection to the building drain to its connection to the stack vent. 710.1.4 Minimum size of drain serving a water closet. The minimum size of any building drain serving a water closet shall be 3 inches. Not more than two water closets shall discharge into a 3-inch horizontal building drain. Not more than six water closets shall discharge into a 3-inch vertical building drain.						PASSED
710.3 Underground Drainage Piping. Any portion of the drainage system installed underground or below a basement or cellar shall not be less than 2-inch diameter. In addition, any portion of the drainage system installed underground which is located upstream from a grease						PASSED

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION																															
trap or grease interceptor as well as the underground horizontal branch receiving the discharge there from shall not be less than 3-inch diameter.																																	
<div>TABLE P3005.4.1 MAXIMUM FIXTURE UNITS ALLOWED TO BE CONNECTED TO BRANCHES AND STACKS</div> <table><tr><th>NOMINAL PIPE SIZE (inches)</th><th>ANY HORIZONTAL FIXTURE BRANCH</th><th>ANY ONE VERTICAL STACK OR DRAIN</th></tr><tr><td>...</td><td>...</td><td>...</td></tr><tr><td>3</td><td>20 (not over two water closets)</td><td>48-30 (not over six water closets)</td></tr><tr><td>...</td><td>...</td><td>...</td></tr></table> <div>TABLE P3005.4.2 MAXIMUM NUMBER OF FIXTURE UNITS ALLOWED TO BE CONNECTED TO THE BUILDING DRAIN, BUILDING DRAIN BRANCHES OR THE BUILDING SEWER</div> <table><tr><th rowspan="2">DIAMETER OF PIPE (inches)</th><th colspan="3">SLOPE PER FOOT</th></tr><tr><th>1/8 inch</th><th>1/4 inch</th><th>1/2 inch</th></tr><tr><td>...</td><td>...</td><td>...</td><td>...</td></tr><tr><td>3</td><td>3620 (not over two water closets)</td><td>4227 (not over two water closets)</td><td>5036 (not over two water closets)</td></tr><tr><td>...</td><td>...</td><td>...</td><td>...</td></tr></table>	NOMINAL PIPE SIZE (inches)	ANY HORIZONTAL FIXTURE BRANCH	ANY ONE VERTICAL STACK OR DRAIN	3	20 (not over two water closets)	48-30 (not over six water closets)	DIAMETER OF PIPE (inches)	SLOPE PER FOOT			1/8 inch	1/4 inch	1/2 inch	3	36 20 (not over two water closets)	42 27 (not over two water closets)	50 36 (not over two water closets)		PASSED
NOMINAL PIPE SIZE (inches)	ANY HORIZONTAL FIXTURE BRANCH	ANY ONE VERTICAL STACK OR DRAIN																															
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...																														
<div>P3005.6 Minimum size of soil and waste stacks.</div> <div>No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 water closet connection shall not be considered as a reduction in pipe size. The soil or waste stack shall run undiminished in size from its connection to the building drain to its connection</div>		PASSED																															

INTERNATIONAL CODES AMENDMENTS

2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
<p>to the stack vent.</p> <p>P3005.7 Minimum size of drain serving a water closet. The minimum size of any building drain serving a water closet shall be 3 inches. Not more than two water closets shall discharge into a horizontal 3-inch building drain.</p> <p>P3005.8 Minimum size of building sewer. In accordance with P3001.4, no building sewer shall be less than 4 inches in size with the exception of force lines.</p> <p>P3005.9 Underground drainage piping. Any portion of the drainage system installed underground or below a basement or cellar shall not be less than 2-inch diameter.</p>		
See “Attachment” for proposed changes to Table 709.1 (Drainage Fixture Units for Fixtures and Groups) of the IPC	See “Attachment” for proposed changes to Table 709.1 (Drainage Fixture Units for Fixtures and Groups) of the IPC. Propose to replace the table with what is currently included in LAC 51:XIV which includes a more extensive list of fixtures. In addition, it breaks each use into three classifications (Private, Public, Assembly). A dfu is based on expected use which is higher in assembly than in private use. This will help to ensure there is enough air space in the drainage system to prevent positive and/or negative pressures from generating in the system which would destroy trap seals, allowing sewer gas to enter a building/dwelling.	TIED
Repairs to drainage system via re-route. In the case where it is determined that there is a broken underground drain line including, but not limited to, broken drain lines under the slab of a building, and a drain line re-route is performed, the existing broken underground drain line shall be cut or otherwise disconnected from the entire drainage system. At the point of such cutting or disconnection, the entire circumference of the existing pipe which remains connected to the drainage system shall have a wall thickness of not less than 1/8-inch. The existing pipe which remains connected to the drainage system shall be sealed watertight and gastight using approved plumbing materials and joining/jointing methods, <i>e.g.</i> , properly install an approved cap, plug, or cleanout on the cut or disconnected pipe.	<p>ADD as New Section 701.10 in Chapter 7 of the IPC and as New Section P3001.4 of Chapter 30 of IRC:</p> <p>Following this regulation will help to ensure that old drainage piping which remains connected to the drainage system has been properly sealed and made gas and watertight when a drainage system re-route is performed.</p>	PASSED
P3009.14 Landscape irrigation systems. In accordance with provisions of the Louisiana State Sanitary Code [LAC 51:XIII (Sewage Disposal)], a permit shall be obtained from the state health officer prior to the construction of any subsurface landscape irrigation system which utilizes gray water. Subsurface landscape irrigation systems shall comply with Sections P3009.14.1 through P3009.14.11; however, the regulations of the Louisiana State Sanitary Code shall supersede any provisions of P3009.14.1 through P3009.14.11 when a	<p>AMEND Section P3009.14 of the IRC.</p> <p>Gray water is considered sanitary sewage under the provisions of Chapter XIII of the Louisiana State Sanitary Code (LAC 51:XIII). As such, a permit is required from the state health officer prior to on-site disposal of same (see LAC</p>	TIED

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
conflict exists or a provision is less stringent than those contained in the Louisiana State Sanitary Code.	51:XIII.701.A).	
713.6 Central disposal system equipment. All central vacuum (fluid suction) systems shall provide continuous service. ... The exhausts from a vacuum pump serving a vacuum (fluid suction) system shall discharge separately to open air above the roof. <i>The exhaust discharge shall not create a nuisance or hazard within, without, around or about the premises. Termination and location of the exhaust to the atmosphere shall be the same as required for sanitary sewer vents.</i>	AMEND the Section 713.6 of the IPC: Recommended language to ensure that the exhaust vent terminal and its location meets at least the vent terminal regulations for sanitary sewer vents regarding distance from air intakes, etc.	TIED
713.9 Local vents and stacks for bedpan washers. Bedpan washers shall be vented to open air above the roof by means of one of more local vents. <i>The vent terminal and location of the local vent shall be the same as required for sanitary sewer vents.</i> The local vent for a bedpan ... pipe. A local vent ... fixture served.	AMEND the Section 713.9 of the IPC: Recommended language to ensure that the terminal and its location of a local vent meets at least the vent terminal regulations for sanitary sewer vents regarding distance from air intakes, etc.	PASSED
SANITARY SEWAGE. See “Sewage.” SEWERAGE SYSTEM. Any system of piping (excluding the <i>building drain and building sewer</i>) and/or collection and/or transport system and/or pumping facility and/or treatment facility, all for the purpose of collecting, transporting, pumping, treating and/or disposing of <i>sanitary sewage</i> .	RECOMMEND ADDING THE FOLLOWING DEFINITIONS INTO CHAPTER 2 IPC AND CHAPTER 2 IRC: “Sanitary sewer” is defined in both the IPC and IRC but “Sanitary sewage” is not defined. “Sewerage system” is not defined in either the IPC or IRC.	TIED
BUILDING DRAIN. That part of the lowest piping of a drainage system that receives the discharge from soil, waste and other drainage pipes in side and that extends 30 inches (762 mm) in developed length of pipe beyond the exterior walls of the building and conveys the drainage to the building sewer. Combined. A building drain that conveys both sewage and storm water or other drainage. Sanitary. ... Storm. ... BUILDING SEWER. ... Combined. A building sewer that conveys both sewage and storm water or other drainage. Sanitary. ... Storm. ... COMBINED BUILDING DRAIN. See “Building drain, combined.”	RECOMMEND AMENDING THE DEFINITIONS IN CHAPTER 2 IPC: “Combined sewage and storm water building drain” is not allowed. Combined sewage and storm water building sewer” is not allowed. “Combined building drain” is not allowed.	PASSED

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
COMBINED BUILDING SEWER. See “Building sewer, combined.”	“Combined building sewer” is not allowed.	
PLUMBING. The practice, materials and fixtures utilized in the installation, maintenance, extension and alteration of all piping, fixtures, plumbing appliances and plumbing appurtenances, within or adjacent to any structure, in connection with sanitary drainage or storm drainage facilities; venting systems; and public or private water supply systems. <i>Plumbing includes yard piping connecting sanitary or storm drainage with any point of disposal or other acceptable terminal as well as the water service piping connecting to a water main or other source of water supply. Plumbing does not include the installation, alteration, repair or maintenance of automatic fire sprinklers and including the underground or overhead water supply beginning at the outlet of an approved backflow prevention device installed under the plumbing provisions of this code where water is to be used or is intended to be used exclusively for fire protection purposes.</i>	It is important to separate the plumber’s jurisdiction vs the fire sprinkler contractor’s jurisdiction.	PASSED
SEWER. A pipe or other constructed conveyance which conveys sewage, rainwater, surface water, subsurface water, or similar liquid wastes. Building sewer. ... Public sewer. A common sewer directly controlled by a public authority or utilized by the public. Sanitary sewer. ... Storm sewer. ...	The term “sewer” itself is not defined.	PASSED
SEPTIC TANK. A water-tight receptor that receives the discharge of a building sanitary drainage system and is constructed so as to separate solids from the liquid, digest organic matter through a period of detention, and allow the liquids effluent to discharge into the soil outside of the tank through a system of open joint or perforated piping or a seepage pit is otherwise treated and disposed of utilizing other methods approved by the state health officer.	RECOMMEND AMENDING THE DEFINITION IN CHAPTER 2 IRC: A seepage pit is not defined in this code or allowed under the sewage disposal code (Part XIII) of the State Sanitary Code. The suggested wording would allow the effluent to be treated in an approved oxidation pond or sand filter bed, etc., which is allowed under the Sanitary Code.	PASSED
BUILDING SEWER. That part of the drainage system that extends from the end of the building drain and conveys the discharge to a public sewer, community sewerage system, private sewer, commercial treatment facility, or individual sewage disposal sewerage system or other point of disposal.	RECOMMEND AMENDING THE DEFINITION IN CHAPTER 2 OF THE IPC AND IRC	TIED

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2012 INTERNATIONAL CODES (IPC and IRC)	DHH COMMENTS, CODES AND CONCERNS	PTC ACTION
CHAPTER 8 – INDIRECT WASTE		
WASTE RECEPTOR. A <i>plumbing fixture</i> designed specifically to collect and dispose of <i>liquid waste</i> received from an <i>indirect waste pipe</i> which is connected to other <i>plumbing fixtures</i> , plumbing equipment or appliances which are required to discharge to the <i>drainage system</i> through either an <i>air gap (drainage system)</i> or <i>air break (drainage system)</i> . The following type fixtures fall within the classification of <i>indirect waste receptors</i> : <i>floor sinks</i> , curbed cleaning facilities with floor drain, and standpipe drains with integral <i>air gaps (drainage system)</i> or <i>air breaks (drainage system)</i> , and may include others when approved as such by the <i>code official</i> .	Recommend adding the definition of “waste receptor” to the 2012 IPC and 2012 IRC which adds clarification as to the use of this term throughout the 2012 IPC and 2012 IRC.	PASSED
802.1.1 Food handling. Equipment and fixtures utilized for the storage, preparation and handling of food shall discharge through an indirect waste pipe by means of an <i>air gap</i> . Food handling equipment includes but is not limited to the following: any sink where food is cleaned, peeled, cut up, rinsed, battered, defrosted or otherwise prepared or handled; potato peelers; ice cream dipper wells; refrigerators; freezers; walk-in coolers or freezers; ice boxes; ice making machines; fountain type drink dispensers; rinse sinks; cooling or refrigerating coils; extractors; steam tables; steam kettles; egg boilers; coffee urns; steam jackets or other food handling or cooking equipment wherein the indirect waste pipe may come under a vacuum; or similar equipment.	Recommend amending Section 802.1.1 of the 2012 IPC to give a list of food handling equipment. This will help provide clarification to local code officials whom may become more involved in enforcing sanitary requirements within retail food establishments. §807. Indirect Waste Connections A. Food Handling. Establishments engaged in the storage, preparation, selling, serving, processing or other handling of food shall have the waste piping from all food handling equipment indirectly connected to the drainage system through an air gap (drainage system) or air break (drainage system) as specified in §805 of this code. Food handling equipment includes but is not limited to the following: any sink where food is cleaned, peeled, cut up, rinsed, battered, defrosted or otherwise prepared or handled; potato peelers; ice cream dipper wells; refrigerators; freezers; walk-in coolers or freezers; ice boxes; ice making machines; fountain type drink dispensers; rinse sinks; cooling or refrigerating coils; laundry washers; extractors; steam tables; steam kettles; egg boilers; coffee urns; or similar equipment.	PASSED
802.1.7 Commercial dishwashing machines. The discharge from a commercial dishwashing machine shall be through an <i>air gap</i> or <i>air break</i> into a standpipe or waste receptor in accordance with 802.2. Exception: When a commercial dishwashing machine is located within 5 feet of a trapped floor drain, the dishwasher waste outlet may be connected directly on the inlet side of a properly vented floor drain trap.		Motion was not seconded
CLOTHES WASHING MACHINE		Motion was

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<p>P2718.1 Waste Connection. The A pumped waste discharge from a clothes washing machine shall be through an <i>air break</i></p> <p>P2718.1.1 Gravity Discharge. Any residential machine which discharges by gravity shall discharge into an adequately sized individual waste receptor, such as a floor sink, using an <i>air gap</i> or <i>air break</i>. Such waste receptor/floor sink shall be properly trapped, vented, and directly connected to the drainage system.</p>		not seconded
<p>Proposed DHH Amendments to the IPC/IRC Chapters that were not covered by the PTC:</p> <ul style="list-style-type: none"> • Chapter 8 – Indirect Waste (partial) • Chapter 9 - Vents • Chapter 10 - Traps/Interceptors and Separators • Chapter 11 - Storm Drainage • Chapter 13 - Gray Water Recycling Systems • Chapter 29 (IBC) – Plumbing Systems 	DHH is to submit any amendments not covered to the LSUCCC.	