



NC Plumbing Code

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301.3 - Question: May a lavatory in a commercial restroom empty into a floor drain?

Answer: No, Section 301.3 NCPC requires plumbing fixtures that discharge waste to be directly connected to the sanitary drainage system.

301.3 Connections to drainage system. Plumbing fixtures, drains, appurtenances and appliances used to receive or discharge liquid waste or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems required by Chapter 8.

303.1 - Question: I was recently turned down because the ductile iron pipe I installed did not have any markings on it. The manufacturer states they do not put markings on the pipe because they don't stay. Is ductile iron pipe really required to be marked?

Answer: Yes, Section 303.1 NCPC requires that every length of pipe bear the mark of the manufacturer and any other markings required by the required standard. This can be painted/printed on the pipe or it could be a label affixed to the pipe from the factory.



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305.3 - Question: Are plumbing pipes run under "waffle slabs" required to be sleeved?

Answer: It depends on the design. If the slab is considered a true floating slab & transfers loads to the pilings and not to the soil below then no. Pipes only require sleeves where loads are transferred from the slab or grade beams to the soil below.

306.2.4 - Question: I don't see the requirement for the tracer wire in the 2018 NCPC for sewers. Is it still required?

Answer: The tracer wire amendment to the 2012 NC plumbing code was omitted in the 2018 plumbing code. So as of now it is not enforceable in the 2018 NC plumbing code. A code change proposal has been submitted to get it reinstated in the code but this process takes about 9 months.

308.5 - Question: If a 2 inch PVC plumbing vent pip in an attic exceeds 10 feet in vertical height, would a mid story guide be required?

Answer: Yes, Table 308.5 requires a mid story guide for PVC pipe that is 2 inches and smaller. The table does not specify only drain piping.

312.2 - Question: Is the vent section of a plumbing system required to be tested?

Answer: Yes, Section 312.2 requires a water test on sections of the drainage systems within the building of at least 10 foot of head, except for the uppermost 10 feet of the system. The heading specifies drainage and vent water test. The section also has an exception for one and two family dwellings, allowing a 3 foot head above the highest drainage fitting. This exception does not apply to commercial projects. An air test is also allowed per section 312.3 NCPC.



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312.4 - Question: Is it a requirement for the water to be on the building for the drainage and vent final test?

Answer: Section 312.4 NCPC requires the fixture be filled, then the fixtures have to be filled and then drained and we have to visually inspect for leaks. This is easiest if the water is on. It could be done with some form of portable water supply, that would be up to the contractor. Other options is a gas tightness test, either smoke or peppermint as allowed by the code.

403.1 - Question: In the 2018 NCPC, Table 403.1 requires a drinking fountain for Business at a rate of 1/100. The previous code had different rates, and only required 3 drinking fountains for 500 people. This new code would require 5 drinking fountains for 500 people. Is that correct?

Answer: Yes, the 1/100 is the number now. That is actually the number from the ICC model code, so many other states are using that number.

403.1 - Question: In the 2018 NCPC, Table 403.1 requires a drinking fountain for Business at a rate of 1/100. The previous table started at 25. Does this mean if I have 5 people in a Business occupancy, I must provide a drinking fountain?

Answer: The number now is over 15. Section 410.2 was mistakenly deleted from the plumbing code, but still exist in the building code section 2902.6.

410.2 Small occupancies. Deleted.

[P] 2902.6 Small occupancies. Drinking fountains shall not be required for an occupant load of 15 or fewer.

There is a code change in the process to restore section 410.2 NCPC. Bill Moeller at NCDOT has said to use

the language from 2902.6 NCBC as that is what section 410.2 will state when it is put back in the code.



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403.2 - Question: I was turned down on plan review for my restroom. We used a European style where the stalls are all private, but the lavatories are in a common room. Why was this not acceptable?

Answer: Section 403.2 NCPC requires separate facilities for male and female, unless one of the exceptions can be met. Section 405.3.2 NCPC requires the required lavatory to be in the same room as the required watercloset. This means the required lavatories for the women, must be in the same room and separate from the men; and vice versa. Separate facilities applies to the lavatories as well, so having them grouped is not code compliant.

403.3.3 - Question: I am designing a multi-story tenant building with core facilities. I will have some tenant spaces with more than 25 occupants, will I be required to install a service sink in each of those spaces?

Answer: No, while the NCPC does not directly specify a location for the service sink; it does tell us the toilet facilities can be within 500 feet and one story up or one story down (403.3.3 NCPC). The drinking fountain can also be within 500 feet and one story up or down (403.5 NCPC). With this code logic, the service if provided in the core facilities for the tenants must meet the same criteria.

405.3.1 - Question: Can a watercloset be set at an angle to the wall behind it, to get the required side clearances?

Answer: Yes, Section 405.3.1 NCPC only has required side and front clearances for waterclosets. There is not a required minimum or maximum to the wall behind it. Note: If accessible clearances are applicable, they must also be met.

405.7 - Question: On a bathtub, can a straight shoe be installed with a tee below the floor for the overflow?



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Answer: Nothing prohibits this in the code. The overflow shall be designed and installed so that standing water in the fixture will not rise in the overflow when the stopper is closed and no water will remain in the overflow when the fixture is empty.

405.7 Design of overflows. Where any fixture is provided with an overflow, the waste shall be designed and installed so that standing water in the fixture will not rise in the overflow when the stopper is closed, and no water will remain in the overflow when the fixture is empty.

411.1 - Question: Does an eye wash have to have tempered water?

Answer: Yes. 411.1. Emergency showers and eyewash stations shall conform to ISEA Z358.1. This standard says water must be tempered.

416.5 - Question: Does a sink located in the exam room of a doctor's office require tempered water?

Answer: No, Section 416.5 states public hand washing facilities are required to be provided with tempered water. The definition of "public" refers to "general toilet rooms" and cites unrestricted use. The sink in the exam room is there for there for use by the staff primarily.

416.5 Tempered water for public hand-washing facilities. When hot water is provided to a public hand-washing facility, such water shall be tempered water delivered through an approved water-temperature limiting device that conforms to ASSE 1070 or CSA B125.3.

PUBLIC OR PUBLIC UTILIZATION. In the classification of plumbing fixtures, "public" applies to fixtures in general toilet rooms of schools, gymnasiums, hotels, airports, bus and railroad stations, public buildings, bars, public comfort stations, office buildings, stadiums, stores, restaurants and other installations where a number of fixtures are installed so that their utilization is similarly unrestricted.



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602.3 - Question: Does section 602.3 NCPC prohibit the use of a well on a commercial project?

Answer: No, Section 602.3 NCPC is stating where a public water supply is not available another potable water supply will have to be provided, for example a well.

602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized.

P2602.1 NCRC - Question: Can a well be used on a single family house under the 2018 code?

Answer: No, Section P2602.1 requires a connection to the public water, if it is available. It also requires a connection the public sewer, if it is available.

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 sewer system, respectively, if available. Where either a public water supply or sewer system, or both, are not available, or connection to them is not feasible, an individual water supply or individual (private) sewage-disposal system, or both, shall be provided.

604.4.1 - Question: Are metering faucets required in a pool house?

Answer: Yes, the pool house restrooms serve an assembly use.

Tommy,

Good to hear from you. Metering faucets are required for the pool house restrooms because they serve an assembly use. I toyed with the idea of business use for assembly occupancy less than 50 but the plumbing fixture table 403.1 is intended to be interpreted more by the description of use. Occupancy types in Table 403.1 are secondary information, not to be used as the only basis for fixture count. The business occupancy can be used for egress and general design of the pool house if the assembly occupancy is less than 50 for the pool house, but not the plumbing fixtures.



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Bill Moeller

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604.4.1 - Question: Where are metering faucets required?

Answer: They are required in public restrooms with 6 or more lavatories, Education and Assembly occupancies. See code Section 604.4.1 NCPC 604.4.1 Lavatory faucets. Lavatory faucets shall be of the metering type when located in the following public restrooms:

1. In all occupancies in restrooms which have six or more lavatories.
2. In school occupancies in student-use restrooms.
3. In assembly occupancies in all customer or public-use restrooms.

605.22 - Question: Where can stack expansion joints be installed on a multi-story building?

Answer: Section 605.22 only allows mechanical joints below grade, unless otherwise approved. After discussing with NCDOI, these expansion joints can be installed at the base of the stack on the first floor. This will limit the damage if they leak and at the same time absorb movement when/if the building settles or shrinks.

606.1 - Question: The code language changed in the 2018 code. Does section 606.1 NCPC now require a readily accessible main shutoff in each tenant space of a strip shopping center or office building?

Answer: Previously, we had said if there was a readily accessible valve that the tenants could get to, either serving the building or floor, then the shutoff valves in



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the tenant spaces could be in the ceiling and their locations could be marked. The new code language doesn't say they have to have a shutoff valve in each tenant space, just the valve has to be in the building and is readily accessible and will turn the water off to their space. Nothing is changed on how we enforce this. If they have a readily accessible valve in the building or floor that serves the tenants space, then the supplemental valve in their space can be located in the ceiling and the location marked. We also ran this by NCDOL and they agreed.

606.2 - Question: Are shutoff valves required on wall mounted faucets?

Answer: Yes, section 606.2 requires shutoff valves on the fixture supply to each plumbing fixture other than bathtub and showers. Wall mounted faucets are not exempted.

606.2 - Question: Are shut off valves required for pot fillers?

Answer: This question came up in 2016, after reaching out to NCDOL this was the response.

Bill Moeller at NCDOL gave the following statement:

"Technically a fixture requires water and discharges waste to the drainage system. The pot filler is a water supply fitting. Using the strict code language, it's my interpretation that a shutoff valve can be recommended but not required for a pot filler with no sink."

PLUMBING FIXTURE. A receptacle or device that is either permanently or temporarily connected to the water distribution system of the premises and demands a supply of water therefrom; discharges wastewater, liquid-borne waste materials or sewage either directly or indirectly to the drainage system of the premises; or requires both a water supply connection and a discharge to the drainage system of the premises.



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607.3 - Question: I have heard we can only use thermal expansion tanks on commercial projects to control thermal expansion. Is this true?

Answer: Yes, Section 607.3 NCPD was changed and only references expansion tanks. The previous language stated, "a method for controlling thermal expansion"; which was open and allowed other devices. The language was only changed in the plumbing code, the residential code still has the old language and can use other devices.

607.3 Thermal expansion control. Where a storage water heater is supplied with cold water that passes through a check valve, pressure reducing valve or backflow preventer, a thermal expansion tank shall be connected to the water heater cold water supply pipe at a point that is downstream of all check valves, pressure reducing valves and backflow preventers. Thermal expansion tanks shall be sized in accordance with the tank manufacturer's instructions and shall be sized such that the pressure in the water distribution system shall not exceed that required by Section 604.8.

702.4 - Question: Can PVC slip expansion joints be used in the drainage system?

Answer: Table 702.4 NCPD gives the required standards for fittings. We have not been able to find a slip expansion joint that conforms to the required standards from T702.4.

706.3 - Question: Can a sanitary tee be installed on it's back to connect a dry vent?

Answer: Yes, there is no problem for venting only. This configuration could not be used to receive waste from a stack. The 2015 IPC commentary clarifies this installation is ok on p7-25

Commentary:

"Sanitary tees may be used for horizontal drainage flow through the run of the tee where the branch of the tee is for venting only and is oriented within 45



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degrees of the vertical. A sanitary tee can be installed on its back for venting applications in sanitary drainage."

706.3 - Question: Is a quarter bend and closet bend the same fitting? Footnote "d" limits the quarter bend to within 12 inches of the watercloset, would this apply to a closet bend.

Answer: After much discussion, both internal, NCDOL and other jurisdictions; we would consider a quarter bend and a closet bend as different fittings. They are close, but are marketed under different names and have slight differences; i.e. radius.

708 - Question: Are cleanouts required at the base of stacks under the 2018 NCPC?

Answer: No, Section 708.3.4 Base of Stack (2012 NCPC) was deleted from the 2018 code when it was adopted.

708.1.3 - Question: I have a townhouse with a garage at the rear. The sewer will run out on garage side. Does the building/sewer cleanout go in the garage (outside heated space), or outside the garage (outside the framing)?

Answer: The building drain is defined as the lowest piping of a drainage system that receives the discharge from soil, waste and other drainage pipes inside and that extends out 10 feet beyond the exterior walls of the building. The cleanout would be outside the garage, beyond the framed exterior wall.

708.1.2 - Question: I have a project with a 10 inch building drain and of course a 10 inch sewer. Is a manhole required at the junction of the building drain and the building sewer?



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Answer: No, Section 708.1.2 NCPC is specific to sewers. This section has the requirement for manholes for sewers 8 inches and larger. Section 708.1.3 NCPC is a separate section that requires a cleanout at the junction of the building drain and building sewer. The first manhole can be up to 200 feet away from the building, this is explained in the commentary for Section 708.1.2. Section 708.1.3 still requires a cleanout at the junction of the building drain and the building sewer, but this can be a 2 way cleanout and would only be required to be a minimum of 4 inches.

708.1 - Question: Does the requirement for a cleanout after 4 - 45s only apply to the building drain and sewer?

Answer: No, Section 708 NCPC provides the requirements for cleanouts. Section 708.1 is the main heading and section 708.1.1 gives the requirements for building drains, 708.1.2 gives the requirements for building sewers. Section 708.1.4 requires a cleanout after 4-45s and is a standalone section under 708.1.

712.3.3.1 - Question: I have been told that we cannot use cell core pipe for the discharge piping on a sump, is this true?

Answer: Yes, section 712.3.3.1 NCPC lists the acceptable materials for the discharge of a sump. It also excludes cell core products.

802.2 - Question: I was recently turned down for not having a trap on indirect drain lines under a commercial sink. Is this correct?

Answer: Yes, Section 802.2 NCPC requires indirect piping be trapped, that exceeds 30 inches (previous code was 24) in developed length measured horizontally, or 54 inches (previous code was 48) in total developed length.



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802.3 - Question: I have an existing hub drain in an above ceiling area used for condensate. It has been there for almost 30 years. If I don't touch it, can it continue to be used?

Answer: Yes, the code states if it was code compliant when it was installed and it is not being changed, it can continue to be used. This was not specifically prohibited in the code at one time and was accepted. The code today specifically prohibits such installation. If the above ceiling area is changed to a plenum, the drain would need to be removed.

802.3 Waste receptors. Every waste receptor shall be of an approved type. A removable strainer or basket shall cover the waste outlet of waste receptors. Waste receptors shall be installed in ventilated spaces. Waste receptors shall not be installed in concealed spaces. Waste receptors shall not be installed in plenums, crawl spaces, attics, interstitial spaces above ceilings and below floors. Ready access shall be provided to waste receptors.

802.4 - Question: Can a laundry tray drain be tied into the stand pipe for the washing machine?

Answer: Yes, Section 802.4 specifically allows this connection.

802.4 Standpipes. Standpipes shall be 2 inches (51 mm) in diameter and not less than 18 inches (762 mm) or more than 48 inches (1219 mm) in height as measured from the crown weir. The standpipe shall extend 34 inches (864 mm) minimum above the base of the clothes washer unless recommended otherwise by the manufacturer. The connection of a laundry tray waste line may be made into a standpipe for the automatic clothes-washer drain. The outlet of the laundry tray shall be a maximum horizontal distance of 30 inches (762 mm) from the standpipe trap.

P3103.5 - Question: How do you install plumbing vents on a townhouse that is less than 20 feet wide?



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Answer: This question asked to NCDOL. The requirement to be 10 feet from the property line with a plumbing vent is a NC added requirement (is not a requirement in the IPC). The code allows the vent to be within 10 feet of opening if they are at least 2 feet above the openings. The response from NCDOL used this code logic. The plumbing vents may be within 10 feet of party walls on townhouses if they are at least 2 feet above any openings within 10 feet.
Note: In most cases there is a 4 foot area adjacent to the party wall where no penetrations are allowed.

905.4 - Question: Can the vent on a circuit vent rise 6 inches and turn horizontal and run under the floor to a wall?

Answer: No, the exception to Section 905.4 is for interceptors or isolated floor drains. The vent would be required to rise 6 inches above the flood level rim of the highest trapped fixture the being circuited vented.

1002.1 - Question: Can a lavatory tie into the overflow for a bathtub?

Answer: No, section 1002.1 requires each plumbing fixture to be separately trapped. There are some specific exceptions to that section.

1003.3.1 - Question: What fixtures are required to go through a grease collection device?

Answer: An interceptor is required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas.

Examples:

Floor drains in the kitchen area

3 compartment sinks (regardless of location)

Prep Sink



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Can Wash/Mop Sink/Service sink (regardless of location)

If the occupancy contains no food prep area (such as a "B" Occupancy) or grease producing fixtures; then an interceptor is not required.

1003.3.1 Grease interceptors and automatic grease removal devices required. A grease interceptor or automatic grease removal device shall be required to receive the drainage from fixtures and equipment with grease laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, prerinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers without prerinse sinks. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Where lack of space or other constraints prevent the installation or replacement of a grease interceptor, one or more grease interceptors may be permitted to be installed on or above the floor and upstream of an existing grease interceptor.

1003.4 - Question: We have used pumps with oil sensing technology for years in elevator shafts. We are now being told these pumps must pump to a tank, is that correct?

Answer: Yes, section 1003.4 NCPC requires oil minder style pumps to pump the oil to a temporary storage tank. There are 2 designs for oil minder style pumps (pumps with oil sensing technology). In the first, the oil floats on top of the water and the pump runs until the oil is sensed and then the pump stops. If the water level rises and the pump will come back on. The second operates like the first, except the pump stopping, it switches to a different pump stage/pump and the oil is pumped to a tank. This what the code is requiring.

Policy - Question: Can the perimeter pool drain around the pool go to storm?



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Answer: No, this drain is to collect spillage from the pool. This is chlorinated water and should go to sanitary. If there are area drains outside of that area, those may go to storm.

Policy - Question: I have a single family house that is slab on grade. After the floor was poured, the owner decided to change the kitchen layout. Will another test and inspection be required?

Answer: Possibly, Code Enforcement has a policy for this very situation. If part of the slab needs to be removed to make changes to the plumbing system, the following shall apply:

1. If cumulatively more than 4 sq ft of slab is removed
 - a. The underslab plumbing system will need to be retested/inspected (either the section that was altered or the entire system if the section cannot be isolated)
 - b. A slab inspection will be required for the section being poured back. The vapor barrier will need to be installed and the new slab pour must at least be the same thickness as the surrounding slab.
2. If cumulatively equal to or less than 4 sq ft of slab is removed
 - a. No additional underslab test/inspection will be required. It will be the contractor's responsibility to leak test the altered section of plumbing.
 - b. No slab inspection will be required before pouring back. It will be the contractor's responsibility to verify the vapor barrier is installed and the new slab pour must at least be the same thickness as the surrounding slab.

See Attached Interpretation

Other - Question: Where is multi-story wet venting in the 2018 Plumbing Code?

Answer: In the 2012 NCPC, Multi-Story wet vent was section 909.4. That section was inserted by NC. That section was not included in the 2018 NCPC when it was adopted. Since, it was not adopted, it cannot be fixed with an errata, it must be



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handled as a code change. In the current code, there is no provision for multi-story wet vent.

Manufacture's Installation - Question: Could you put me in the right spot in the code book where it states that 18" of copper is required on a gas water heater? We have been questioned about PEX being tied directly to an electric heater, which we know is legal, just trying to locate the verbiage in the code book

Answer: It is not in the code. Almost all manufacturers require a minimum of 12 inches of clearance above the top of the water heater to combustibles. Copper extensions have always been used to meet this requirement. So many manufacturers have that requirement it is assumed it is a code requirement. On electric water heaters, we go by what the installation instructions require. Most have a zero clearance above the top of the heater and do not prohibit connecting PEX or CPVC directly to the tank, but there are a few we have found that does. It will go back to the installation instructions.

Other - Question: Can the drain from the flue of a tankless waterheater discharge to a washer box?

Answer: We can find nothing in the code that would prohibit this. A neutralizer maybe needed before discharging to the washer box depending on the ph of the discharge. The manufacturer's installation instruction could also be specific on where the line could discharge.

Other - Question: Can you give a clarification on what counts as a service sink?

Answer: The NCPC does not give a definition of "Service Sink". However, it does give substitutions and we can gather an intent from them. Footnotes from Table 403.1 NCPC



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g. A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.

h. A can wash may be used in lieu of a service sink.

A mop receptacle, hose bib/floor drain and can wash can all be used in lieu of a service sink. The commentary tells us:

The “service sinks” required by Table 403.1 are intended to be of a type suitable for janitorial and building maintenance purposes. Service sinks include mop sinks/basins, utility tub/sinks, janitor sinks, slop sinks and laundry trays.

We are looking for a sink to fill and empty a mop bucket basically. The faucets will typically have a hose connection. Many designers simply spec an inexpensive laundry tray.

Manufacture's Installation - Question: Are residential ice machines required to have indirect drains?

Answer: We can find no requirement for the drain of a residential ice machine in a dwelling, to be indirect. Section 802.1 NCPC would normally require indirect drainage for food handling equipment, but it excludes dwelling units. There is also no requirement in the NCRC to have indirect drainage. If the residential ice machine is installed in a commercial building, an indirect connection would be required. An indirect connection may be required in a dwelling if the manufacturer's installation instructions require it.

Manufacture's Installation - Question: What are the required clearances for an electric water heater?

Answer: Clearances to combustibles will be per the manufacturer's installation instructions. Working clearances will be per Chapter 5 of the NCPC. The code



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requires a 30x30 service area for installations in attics and crawlspaces. Other installations the working clearances will be per manufacturer's installations instructions and the NEC.

Manufacture's Installation - Question: Can CPVC be used under slab?

Answer: Yes, we can find nothing that prohibits the use of CPVC under slab in the code. Nothing in any of the manufacturer's specs prohibited underslab installation. We did locate a memo from the Plastics Pipe Institute supporting the use of CPVC within and under slabs.

From the Plastics Pipe Institute

Position

Inherent in the typical applications of plumbing, fire protection and hydronic heating, fittings for chlorinated polyvinyl chloride (CPVC) pipe and tubing are intended to be installed in access-restricted locations such as within walls, above ceilings, and within or under poured concrete slabs.

Most CPVC systems need not be designed using an abundance of fittings or joints. However, when joints are required within such locations, including those below or embedded within concrete slabs either for repair purposes or as per design (e.g. plumbing connections), the Plastic Pipe Institute (PPI) supports the position of CPVC pipe, tubing and fitting manufacturers that permit such installations. Installation of fittings within or under concrete slabs must be strictly in accordance with the manufacturer's instructions. PPI also promotes pressure testing of piping systems per local code requirements and per manufacturer's instructions prior to embedding them within or under concrete slabs.

The PPI promotes the removal of code restrictions against such installations, allowing individual manufacturers the right to recommend this practice where deemed appropriate.

Table P2701.1 - Question: Can a waterless urinal be installed in residence?



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Answer: No, The commercial code addresses waterless urinals and requires them to meet ANSI Z124. The residential code does not address waterless urinals anywhere in the code. Table P2701.1 gives the required standards for plumbing fixtures in the residential code. Urinals are listed in the table, but the ANSI Z124 standard is not listed for urinals in that table.

Mechanical Code - Question: Is there a height limitation on tankless water heaters installed in residential (private) garages that negates the need for vehicular protection?

Answer: Yes, the height is 6ft according to section M1307.3.1 of the Residential Mechanical Code & 304.7 NCMC. If installed 6 foot or higher, no impact protection is required in private garages.

Other - Question: I am hearing Sharkbite fittings cannot be installed underground anymore, its this true?

Answer: Sharkbite, recently changed their policy on underground installation. The listing still states they can be installed underground without any special provisions. Sharkbite, has not said the fittings cannot be installed underground, but have stated if they are installed underground and the fittings are not wrapped in the recommended silicone wrap, they will not warranty them for the full 25 years.

Other - Question: Do water conditioners, softeners, filters etc. require a pan on a second story residential structure?

Answer: No, NCPC and NCRC only address tanks used for storage of hot water in conjunction with pan requirements. The types listed above do not store hot water.



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714.5 NC Building Code - Question: I have a 4 story townhouse and I am being told I cannot use PVC for the stack or vents. I have built many townhouses and never had this problem.

Answer: Townhouses up to 3 stories are built under the NC Residential code, for 4 stories and greater the building is build under the NC Building Code. Section 714.5 NCBC requires materials penetrating nonfire-resistance-rated assemblies connecting between 3 and 5 stores must be noncombustible; or the material must be in a shaft.

714.5 Nonfire-resistance-rated assemblies. Penetrations of nonfire-resistance-rated floor or floor/ceiling assemblies or the ceiling membrane of a nonfire-resistance-rated roof/ceiling assembly shall meet the requirements of Section 713 or shall comply with Section 714.5.1 or 714.5.2.

714.5.1 Noncombustible penetrating items. Noncombustible penetrating items that connect not more than five stories are permitted, provided that the annular space is filled to resist the free passage of flame and the products of combustion with an approved noncombustible material or with a fill, void or cavity material that is tested and classified for use in through-penetration firestop systems.

714.5.2 Penetrating items. Penetrating items that connect not more than two stories are permitted, provided that the annular space is filled with an approved material to resist the free passage of flame and the products of combustion.

A117.1 - 602 - Question: Can a water dispenser on a refrigerator in a breakroom be used as a substitute for a required drinking fountain?

Answer: No, a water dispenser on a refrigerator cannot be used as a substitution for a drinking fountain. There are specific requirements for a drinking fountain in A117.1 section 602 (these include but are not limited to spout height, arc of the water stream, spout location, etc). Also, a drinking fountain can be used without cups.



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Other - Question: I am inspecting a theater that is interactive and has misting and scent lines, are we responsible for looking at the mist and scent lines?

Answer: No, these lines would not be considered part of the Plumbing System.

There should be backflow protection before this system and we would inspect up to that point.

PLUMBING SYSTEM. A system that includes the water distribution pipes; plumbing fixtures and traps; water-treating or water-using equipment; soil, waste and vent pipes; and building drains; in addition to their respective connections, devices and appurtenances within a structure or premises; and the water service, building sewer and building storm sewer serving such structure or premises.

Other - Question: Can push fittings such as SharkBite and Gator Bite be used underground?

Answer: The evaluation by IAPMO for SharkBite fittings do state underground use. GatorBite has an ICC evaluation and it only allows inside the building, above ground.

See Attachments

810 NCEBC - Question: The 2018 Plumbing Code requires service sinks for occupancies that previously did not require them. I have a project submitted under the Existing Building Code, when would a service sink be required.

Answer: An Alteration Level II would be the minimum level where a service sink may be required. Section 810 NCEBC requires plumbing fixtures be provided per the NCPC if the occupant load for that story is increased more than 20 percent. If more than a 20 percent increase is provided, then the fixtures for that story must be updated to the requirements of 2018 NCPC. This would also apply to drinking fountains.



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Other - Question: Dead ends are not addressed in the residential code. Are they allowed?

Answer: The NCRC is a stand alone book, but it also states if something is not addressed, then you refer to the NCPD.

Building Code - Question: A tenant upfit for a restaurant is installed on the first floor of a High Rise Building. The tenant plumbing contractor installs a vent riser in the corner of an exit stair because he says there is no vent riser he can tie the restaurant venting to on the first floor. Is this an acceptable alternative?

Answer: NO. The building code will not allow the installation because nothing can be in a rated stairwell except equipment for the stairwell itself. Clearly the vent riser is not for the stairwell and is therefore disapproved as a means of venting the restaurant.

Other - Question: What is the maximum depth of a two-way cleanout?

Answer: We can find no maximum depth for a two-way cleanout in the code. At one time it was accepted these should not be installed deeper than 24 inches. This would allow the plumber room to turn the snake/rod and to ensure it was going in the correct direction. This was an accepted practice, there is no code section we can find to enforce this.

R2903.10 - Question: I have heard a stop and waste valve is required on all branches feeding hose bibbs. Is this correct?

Answer: For one- and two-family and townhouses, hose bibbs subject to freezing shall be equipped with a stop and waste valve to allow draining in cold weather.



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There is an exception for frostproof hose bibbs where the stem extends into a heated or semiconditioned space. NCDOI has considered the crawlspace as a semiconditioned space.

R2903.9.1 - Question: Are drain valves required for dwelling units in the 2018 code?

Answer: Yes, for one- and two-family and townhouses, provisions for drainage such as a bleed orifice or a separate drain valve are required in conjunction with the main shutoff.