

Construction Code Communicator



State of New Jersey
Philip D. Murphy, Governor

Department of Community Affairs
Jacquelyn A. Suárez, Commissioner

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UCC Summary of Rule Changes – Summer 2025 Update

August 4, 2024, *New Jersey Register*

N.J.A.C. 5:23-4D.3 – Recreational Park Trailers – This adoption updates the Uniform Construction Code to reference the 2020 edition of the ANSI A119.5 Park Model RV Standards. In addition, minor changes are included to update language within N.J.A.C. 5:23-4D.3 that references the requirements of the previous edition of the standards, the 2015 ANSI A119.5.

→ for more information, please see “Aug 04, 2025” row at
https://www.nj.gov/dca/codes/codreg/rule_proposals_adoptions.shtml

August 18, 2025, *New Jersey Register*

N.J.A.C. 5:23-2.18 – Inspections – This adoption incorporates into the Uniform Construction Code, the requirements of P.L.2021, c.464, which directs the Department of Environmental Protection to prohibit the sale of certain products and appliances unless they meet the minimum efficiencies established within the law. In order to comply with P.L.2021, c.464, the appropriate subcode official/inspector must verify upon final inspection that these products and appliances contain the applicable mark, label, or tag, established by the Department of Environmental Protection.

→ for more information, please see “Aug 18, 2025” row at
https://www.nj.gov/dca/codes/codreg/rule_proposals_adoptions.shtml

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(UCC Summary of Rule Changes – Summer 2025 Update)

N.J.A.C. 5:23-2.7, 2.14, 2.15, 2.17A, 2.18, 3.4, 3.14, 3.15, 3.16, 3.18, 3.20, 3.21, 3.22, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, and 6.32 – Various – This adoption amends the Uniform Construction Code to reflect updates, corrections, or wording changes. A majority of these changes coincide with the adoption of the 2021 editions of the International Codes, including the International Building Code, International Energy Conservation Code, International Mechanical Code, International Residential Code, and the National Standard Plumbing Code, as well as the 2020 edition of the National Electrical Code, and the associated referenced standards.

→ for more information, please see “Aug 18, 2025” row at

https://www.nj.gov/dca/codes/codreg/rule_proposals_adoptions.shtml

Source: Code Development Unit
(609) 984-7609

Sprinkler Exemptions for Townhomes



(Updated Reprint from Spring 2025)

The Department has continued to receive a number of questions concerning sprinkler exemptions for townhomes as a result of recently passed legislation, so, to help provide some clarification on the matter, here's some additional information to help clear things up. In short, the initial law was passed in 2023 and then amended in 2024 to extend the compliance date.

The law stated that all newly constructed townhomes are required to have sprinkler systems in accordance with the International Residential Code (IRC) as of February 1, 2024. Where this gets tricky is the second addition to the Law that was signed in 2024, which states that any project in which an application for development was submitted to a municipality, county, or state agency before the effective date of the amendment (July 10, 2024) is not subject to the requirements for the sprinkler system. Meaning that, if a project went to a planning board, or received county approval, etc., before July 10, 2024, these requirements won't apply.

When this article was initially published in the Spring 2025 Communicator, there was a proposal for the incorporation of these requirements into the Uniform Construction Code that was not yet adopted. Now, as of October 6th, these amendments have been adopted and can be found in the New Jersey Register at [57 N.J.R. 2305\(a\)](#). For additional information concerning these amendments, please see the “Oct 06, 2025” row at https://www.nj.gov/dca/codes/codreg/rule_proposals_adoptions.shtml.

Please see *Analog Versus Digital: The UCC, NJ Model Codes, and NJ Errata* on page 4 of this Communicator for further information on how this adoption impacts the IRC.

Source: Ian Rayfield
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Please direct any comments or suggestions to the NJDCA, Division of Codes and Standards, Attention: Code Development Unit, PO Box 802, Trenton, NJ 08625-0802 or codeassist@dca.nj.gov.

LP-Gas System Types - Vapor Withdrawal or Liquid Withdrawal



We all know LP-Gas systems can be confusing when it comes to identifying system types, which in turn leads to errors in determining jurisdiction and incorrectly issuing permits. It's time we untangle the tangled, so let's begin!

What is a vapor withdrawal system? Vapor withdrawal is a method that uses gas vapors from the top of the propane container via a vapor service valve, and which incorporates a two-stage regulator system to establish a point of delivery. Common uses are residential and commercial service for heating and cooking equipment, stand-by generators, patio appliances, and pool heating equipment.

What is a liquid withdrawal system? Liquid withdrawal is the method that uses liquid from the bottom of the propane storage tank via an internal valve and may incorporate a pump to facilitate transfer or a liquid service valve at the top that extends to the liquid storage area of a container for liquid withdrawal. Common uses are dispensing systems used to fill small cylinders, Autogas stations for LPG-powered vehicles, grain bin heaters for drying corn, and stand-by generators for cell phone towers or other critical infrastructure.

- Are the three valves mentioned above the same? No, the vapor service valve, liquid service valve, and internal valve are independent appurtenances and can also distinguish service usage by proper identification.
- Is there an exception where both liquid and vapor withdrawal occur within the same system? Yes, systems that incorporate a vaporizer utilize both liquid and vapor. In these cases, the use of liquid withdrawal places the system under the Department's jurisdiction.

Now that we have established system types, what is the number one pitfall for the Local Enforcing Agencies (LEA)? Determining jurisdiction based on tank size alone. Tempting, yes, but misleading. The correct approach starts with identifying usage, and not always gallons.

Let's imagine a scenario: A permit is issued, a review is performed, and inspections are done. However, only then is it realized, oops, it's a liquid withdrawal system, and the local jurisdiction should not be involved. Why did this happen? Because it's a single 1000-gallon tank, sitting below the 2000-gallon threshold. Seems local, right? Not so fast. Liquid withdrawal systems fall under the Department's jurisdiction, always. No ifs, ands, or gallons... Why? See N.J.A.C. 5:23-3.11(j)4. Any mention of liquid? No, because there is no minimum gallon capacity tied to jurisdiction. If it is a liquid withdrawal system, it is the Department's. Period.

Still unsure if it is vapor or liquid? Look for a pressure regulator. If one is present, then you are likely dealing with a vapor system. No regulator? Then you are likely staring at a liquid withdrawal system. All vapor withdrawal systems require a two-stage regulator setup, so this is where tank sizing thresholds come back into play to determine jurisdiction of that system, unless a vaporizer is part of that system (Hint: see exception above).

All LPG systems under the Department's jurisdiction include permits, plan review, and inspections of everything! All gas piping (only up to the point of delivery if the vapor system is above 2,001 gallons of water capacity), foundations, electrical for both power and light, crash protection, and fencing. Essentially, if it's connected to or part of the system, it's in our sandbox.

We have also seen permit issuance and approvals for upgrades to liquid withdrawal systems, specifically electrical components that are part of the LPG system. While the enthusiasm is appreciated, please direct those applications straight to the Department. Remember, if it's liquid, local codes are off duty.

Questions or concerns? Call or email us before things get tangled.

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Analog Versus Digital: The UCC, NJ Model Codes, and NJ Errata

The world is moving fast, everything is going digital, and it sometimes feels like physical media will become a thing of the past. Fortunately, some are keeping the past alive—a thanks goes out to my dad for saving his records. So, to those who love flipping through books (and albums) to find what you're looking for, without the need for Ctrl-F or endless scrolling, and you know the pages of the Uniform Construction Code (UCC) and the New Jersey editions of the model codes like the back of your hand, this article is for you.

Let's say that the UCC was amended, thus leading to the townhouse sprinkler requirements in the NJ edition of the International Residential Code to change (hint, see page 2 of this issue). Well, how would you go about updating your book? Pen? Post-it notes? Fortunately, you won't need either; we've got it covered.

If you click on the following link, <https://www.nj.gov/dca/codes/codereg/current.shtml>, it will take you to a table of the current construction codes. Within the table, you will find links under the NJ editions of the International Building Code, the National Standard Plumbing Code, and the International Residential Code titled *Corrected pages (NJ errata)*. The three links in the table contain the corrected pages for the New Jersey editions that have been amended since their initial publication. From there, you will be able to print and then remove and replace the associated pages in your books.

Hopefully, this helps all those who appreciate analog over digital, the high-fidelity UCC experience.

Source: Ian Rayfield
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Are Decks Considered Projections?

This article dives into one of the more surprisingly hot debates in the world of building codes: Are decks officially considered "projections"? (Spoiler alert: Yes, but let's not ruin the journey.)

The discussion is based on the 2021 International Building Code (IBC) and the 2021 International Residential Code (IRC). The codes don't define "projection," which is a bold move considering how much they love defining terms in Section 202 of both codes. Essentially, a projection extends from an exterior wall and is regulated primarily due to its potential to contribute to the spread of fire between buildings or between different parts of the same structure.

In the IRC, Table R302.1 conveys fire separation distances and has a few footnotes that seem to play favorites, only calling out roof overhangs and rakes. This has caused some head scratching: "If decks aren't listed, are they exempt?" Not quite. While they may not be mentioned in the footnotes, their proximity to exterior walls makes them just as susceptible from a fire safety perspective.

The IBC clears things up a little more in Section 705.2, listing cornices, eave overhangs, and exterior balconies—and then casually throwing in a reference to "similar projections." Decks aren't listed by name, but that "similar projections" phrase is the code's way of winking and saying, "You know what we mean."

To eliminate any doubt, we asked the International Code Council for an interpretation, which confirmed that decks are indeed intended to be regulated as projections. This interpretation aligns with the broader intent of both the IBC and IRC to manage elements that extend from buildings and pose a potential fire risk due to their proximity to property lines or other structures.

In summary, even though the codes are a little coy when it comes to directly naming decks, both the IBC and IRC clearly intend for them to be treated as projections.

Source: Adam Matthews
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Three Roads Lead to Premanufactured Construction Approval

When it comes to premanufactured construction in New Jersey, there's more than one way to get from factory floor to final installation. Under the Uniform Construction Code (UCC), N.J.A.C. 5:23, there are essentially three methods for demonstrating compliance before your module, box, pod, or giant prebuilt room gets the municipal stamp of approval. Think of it as "Choose Your Own Adventure," but with less sword fighting and more labels, test reports, and plan reviews.

Method 1: The Interstate Industrialized Building Commission (IIBC) Route

This is the fast lane for factory-built modules. If your modules are certified by the Interstate Industrialized Building Commission (IIBC), they'll come with labels affixed to the units. These labels are your golden ticket—they tell local code officials that the unit has already been evaluated and meets the standards spelled out in N.J.A.C. 5:23-4A, which is further explained in UCC Bulletin 07-1.

Translation: If you've got the label, you don't have to reinvent the wheel (or the inspection checklist).

Method 2: Evaluation Agency Approval Alternate

Sometimes, modules or premanufactured systems aren't fully covered by IIBC but still come with serious credentials. N.J.A.C. 5:23-4A.5(c) allows the evaluation agency to approve an alternate method of construction for the premanufactured system. This is very much like N.J.A.C. 5:23-3.7, but without automatic approval.

Here's the important nuance: evaluation agencies and nationally recognized testing laboratories (NRTL) typically approve components, systems, or assemblies, not entire homes, after the fact. For example, a pop-up tiny home may contain UL-listed electrical equipment, ICC-evaluated connectors, or nationally tested insulation. While the home itself isn't certified, these component approvals can be recognized by the authority having jurisdiction (AHJ) under N.J.A.C. 5:23-3.7; they don't replace the need for a full evaluation of the dwelling as a whole.

Method 3A: Good Old-Fashioned Plan Review and Inspection

If neither of the above applies, buckle up, you're taking the scenic route. Modules without IIBC certification or an evaluation agency alternate must go through the traditional process:

- Submit signed and sealed construction documents for plan review and approval.
- Be prepared to open up the module for inspection, because the AHJ needs to see what's inside.

This method works, but it can be time-consuming. Think of it as unpacking a mystery box - sometimes you find gold, sometimes you find wiring that makes you wonder who thought that was a good idea.

Method 3B: Municipal Approvals of Alternative Materials, Equipment, or Methods of Construction

A subset of 3A, this is where N.J.A.C. 5:23-3.7 shines. If a specific component—like a generator room, electrical panel, or HVAC system—has been tested and certified by an NRTL, the AHJ can accept that certification instead of performing a full plan review or inspection of that component.

This is exactly how certain parts of premanufactured units (like wiring, insulation, or connectors) can gain approval, even if the overall module isn't IIBC certified. (For a current list of NRTLs, visit <https://www.osha.gov/nationally-recognized-testing-laboratory-program/current-list-of-nrtls>)

The Bottom Line

Whether your modules come with shiny IIBC labels, nationally recognized testing reports for components, or just a set of rolled-up plans waiting for review, the UCC has a pathway for approval. The key is knowing which road you're on:

(Three Roads Lead to Premanufactured Construction Approval)

- **Method 1: IIBC certification** = Smooth sailing with labels.
- **Method 2: Evaluation agency alternate** = Component or system approval under N.J.A.C. 5:23-3.7.
- **Method 3A: Traditional plan review/inspection** = Slower, but still gets you there.
- **Method 3B: Municipal alternative materials** = Part of 3A; individual components can be accepted via NRTL or similar.

Remember: Not every shortcut is a good idea (ask anyone who thought duct tape was a structural connection). But with the right documentation, premanufactured doesn't have to mean problematic.

Source: Keith Makai
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RADON – Rob Austin Discovers Obvious Need...

Yes, an obvious need to write this article... an article about detached one- and two-family dwellings and how to apply the Radon Hazard Subcode, N.J.A.C. 5:23-10, <https://www.nj.gov/dca/codes/codreg/ucc.shtml>.

Take a look at N.J.A.C. 5:23-10.4(c) for residential new construction. Here, it states that the construction techniques within this section are the minimum radon hazard protective features required to be incorporated into residential buildings in tier one areas. It also notes that these construction techniques are not intended to preclude voluntary use of additional or more extensive techniques. And lastly, it notes that additions are not required to meet full compliance with these construction techniques, but those techniques that are feasible should be incorporated. These techniques will be incorporated by the design professional of the project, typically the architect.

When reading the full text of N.J.A.C. 5:23-10.4(c), you'll find this does not apply to existing homes. Enter Uniform Construction Code (UCC) Bulletin 93-4, <https://www.nj.gov/dca/codes/resources/bulletins.shtml>. I know with the UCC going fully online in 2022, some Bulletins may be overlooked, but the title of this Bulletin leaves little to the imagination: Radon Hazard Subcode and Radon Mitigation Work in Existing Buildings. The big takeaways for these dwellings are:

1. Radon mitigation work is categorized as minor work.
2. At maximum, only two technical subcode forms, building and electrical, should be required for radon mitigation work.
3. UCC code officials should not be concerned with the actual operational design of the radon mitigation system since, in most cases, a DEP-certified radon mitigator will be responsible for the system.

An existing one- and two-family dwelling that predates the Radon Hazard Subcode as of 1991 will not have any of the construction techniques. And in these homes, the design of the system will be solely based on the DEP-certified mitigator. One may see some items from N.J.A.C. 5:23-10.4(c) in this system, but that would only be by choice of the mitigator. In short, systems in new construction will equal N.J.A.C. 5:23-10.4(c), and existing homes will be per the DEP-certified mitigator.

PS – See page 12 of the [Summer 2025 ed](#) for *Save Room for Dessert – Radon Fans*, which speaks to adequate access space for servicing devices such as an in-line electrical fan.

Source: Rob Austin
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Mechanical Energy Matrix

This article aims to clarify enforcement requirements for mechanical ventilation, blower door testing, and duct leakage testing under the International Residential Code (IRC) as they apply to existing dwellings, additions, and new construction projects.

Mechanical Ventilation: When Required

To determine when mechanical ventilation is required, we begin with existing dwellings. As you may recall, one must start in N.J.A.C. 5:23-6, the Rehabilitation Subcode, for a connection-reference to the applicable model code, in this case, the International Residential Code (IRC). Section R303.4 of the IRC states that buildings and dwelling units meeting the air sealing requirements of Section N1102.4.1 must provide mechanical ventilation per Section M1505 or another approved method. However, the Rehabilitation Subcode does not reference either Section R303.4 or N1102.4.1.

Confusion often arises because Section 6.8(h)11 indicates that the entire Chapter 15 on Exhaust Systems applies. It is important to note that Section M1505 only governs how to install mechanical ventilation if it's already being provided, and it doesn't establish when it's required. This makes M1505 a "how-to," not a trigger for mechanical ventilation.

Further confusion comes from Section 6.9(e)3, which states that new ductwork must comply with Section N1103.6, but only for controls. While Section N1103.6 is titled "Mechanical Ventilation," it only requires that outdoor air intake/exhaust controls (like dampers) function properly if mechanical ventilation is already provided. Therefore, mechanical ventilation is not required in existing dwellings.

For additions, the applicable code sections apply solely to the new addition, which means mechanical ventilation must be calculated and provided for only that portion.

For new construction, all the relevant IRC sections apply fully, meaning mechanical ventilation is required.

Blower Door Tests

For existing dwellings, there is no reference to Section N1102.4.1 in the Rehabilitation Subcode, so a blower door test is not required.

As already noted, additions are exempt under Bulletin 22-1. This exemption will soon be formally added to Section 6.32. Therefore, blower door testing is not required for additions.

For new construction, an air leakage test is mandatory. For further details, refer to the article "Blower Door Test": https://www.nj.gov/dca/codes/publications/pdf_ccc/CCC_Spring_2023.pdf

Duct Leakage Tests

This requirement is found in the IRC under Section N1103.3.5, Duct Testing.

For existing dwellings, the Rehabilitation Subcode contains no reference to Section N1103.3.5. So even if a completely new HVAC system is installed, a duct leakage test is not required.

For additions, duct leakage testing is required, but only for the ductwork within the addition. If existing ductwork is extended into the new space, it must be temporarily isolated at the addition boundary, and only the new ducts in the addition are subject to testing.

And yes, for new construction, duct leakage testing is always required.

Prefer visuals? Here's a helpful summary matrix below.

(Continued on next page)

(Mechanical Energy Matrix)

	Existing Dwellings	Additions	New Construction
Mechanical Ventilation	No	Yes	Yes
Blower Door Test	No	No (See Bulletin 22-1)	Yes
Duct Leakage Test	No	Yes	Yes

Source: Adam Matthews
Code Assistance Unit
(609) 984-7609

Responsibilities for Solar Energy System: Roof Access, Setbacks and Pathways



N.J.A.C. 5:23-3.4, Responsibilities, was updated on August 18, 2025, with adopted amendments related to solar photovoltaic (PV) systems. More specifically, one should focus on the new responsibilities for final inspection of roof access, setbacks, and pathways for PV systems as found at Section R324.6 of the 2021 International Residential Code (IRC) and at Section 3111.3.4 of the 2021 International Building Code (IBC); final inspection is now the responsibility of the electrical inspector.

This does not mean that the fire protection subcode has no skin in the game with regard to PV system roof access, setbacks, and pathways. Plan review responsibilities for Section R324.6 of the 2021 IRC and Section 3111.3.4 of the 2021 IBC are shared between fire protection and electrical. So, while the measurements of the roof access, setbacks, and pathways will now be verified on the final inspection by the electric inspector, the plans will still have to be thoroughly vetted by the fire protection subcode official during the plan review phase of the project.

As provided by the Department during the comment period of the proposed amendment: “The reasoning for the amendment is to ensure efficient practices of the Uniform Construction Code by enabling electrical subcode officials to inspect solar pathway requirements while performing other necessary inspection requirements in difficult-to-reach areas, such as roofs. This removes the requirement for two inspectors to visit the same difficult-to-reach location...Further, the inspection of these requirements only necessitates measurement and review of pathway locations, as such, these inspections do not require specialized knowledge or skill to complete, thus making it unnecessary to need multiple code officials to accomplish.”

Additionally, with this change, the ability to charge specific fees was modified. N.J.A.C. 5:23-4.18(a)1 and N.J.A.C. 5:23-4.18(b)1 explain that plan review fees are computed as a percentage of the fee for a construction permit fee. Plan review fees are not a separate fee; thus, they cannot be charged separately. Essentially, since a Fire Protection construction permit is no longer required for PV systems, no minimum Fire Protection fee can be charged for the PV system; therefore, a separate plan review fee for Fire Protection cannot be charged.

Finally, when a joint plan review is required, the determining factor of what technical sections are to be used is based on responsibilities for inspection. Specific to pathways of PV systems, an Electrical Subcode Technical Section is the only technical section required. Note that on all technical sections, including the Electrical Subcode Technical Section, are provided with a “Joint Plan Review Required” field located in the “Job Summary” section of the form.

Additional questions related to fees can be directed to Chris Ferrara of Regulatory Affairs at (609) 984-7672.

Source: Keith Thedinga
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The Lights Are On, But Nobody's Home!

Any parent with kids may sometimes wonder if their children know how to turn a light off, as they can certainly turn them on with no issue, but when it comes time for them to leave a room, they seemingly forget how to turn a switch off.

With the recent rate hike to our electric costs, now is the perfect time to revisit the energy code requirements for dwellings.

We've received numerous calls recently about whether the state has adopted the energy code with regard to interior lighting controls. There appears to be some concern about uniform enforcement surrounding this requirement.

The requirements for all permanently installed lighting fixtures to contain high efficacy lighting sources only (Section N1104.1/R404.1) and to be controlled by a dimmer or occupant sensor, either remote or part of the fixture (Section N1104.2/R404.2) have been adopted and in effect since September 2022. The articles can be found in the 2021 International Energy Conservation Code and the energy portion of the 2021 International Residential Code, respectively. Please note that these codes are for all low-rise residential buildings, which are defined as one-and two-family dwellings or multiple-family buildings three stories or less in height. Commercial buildings and multiple-family buildings four stories or more must conform to ASHRAE 90.1-2019.

This code provision is for new construction, as well as rehab when a total replacement or newly installed building lighting system has been performed (see N.J.A.C. 5:23-6.5(e), 6.6(e), and 6.7(e)).

In a dwelling, a "building lighting system" would mean all permanently installed lighting fixtures, not just in a space (for example, a newly finished basement). This term differs from "lighting system" found in ASHRAE 90.1-2019, which refers to a space, room, or tenancy. This difference should be noted as the residential reference is in the charging text, while the commercial further breaks its applicability in a subsection under the charging text.

So, how about we start teaching our kids, "don't concern yourself with learning how to turn a light off, mom and dad will pay to have it done for you!"

Any questions should be directed to the authors below.

Source: Scott Borsos and Adam Matthews
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Pushing the Buttons - Flush Controls

If any of you remember Tiny Toons and Plucky the Duck, you'll recall, "No, I push the button!" Granted, that was in relation to an elevator, followed by the mother saying, "Once is enough." Now putting this together with a toilet, let's just hope one flush is enough!

This leads me to the question about push-button flush controls and whether they meet the requirements of ICC A117.1-2017 for a Type A dwelling unit, especially when located on top of the tank. The answer is: "Yes, but..."

The Commentary for this code addresses the issue very well. Section 1103.11.2.4.6, Flush Controls, requires the control to be hand-operated or automatic, comply with Section 309, Operable Parts, and if hand-operated, to be located on the open side of the water closet. This is where the commentary helps:

"The requirements for the control to be located on the open side is not intended to prohibit a top-of-tank flush control as long as the control is within reach ranges. In theory, any control located from the centerline of the water closet towards the open side can meet the open side requirement."

(Continued on next page)

(Pushing the Buttons – Flush Controls)

So yes, top-of-tank flush controls are permitted as long as they are within reach ranges (found at Section 308, Reach Ranges, as referenced by Section 309); placing the controls at the centerline towards the open side should meet this requirement.

And I'll finish the article with the final Plucky quote, "Elelator go down tha hole!" Cheers to the same happening when you flush also!

Source: Rob Austin
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No Man is an Island (or a Peninsula)

It seems like every code cycle, NFPA tinkers with the wording or requirements in Article 210.52 of the 2020 National Electrical Code (NEC) for receptacles on islands and peninsulas in dwelling units. So, it is not surprising that, because of this, there is quite a bit of confusion regarding what those requirements are and how to apply them for new construction or rehabilitation projects, not only for contractors but also for code officials, too.

This article will attempt to clarify what is required for not only new construction, but also rehab projects as well.

First, let's establish that the Department is currently enforcing the 2020 NEC. With this being the case, the number of receptacle outlets and locations for islands/peninsulas in new construction, is clearly defined in Article 210.52(C)2 and 3. Please note that nothing in this article prohibits these receptacle outlets from being grouped (ganged).

For rehab projects, two classifications of work would apply. The first is that reconstruction projects would mostly follow these requirements, with the exception found at N.J.A.C. 5:23-6.27(f)1i. The second is that additions that include the installation of an island or a peninsula would follow new construction requirements per N.J.A.C. 5:23-6.32(a).

One of the most misunderstood aspects of the installation of receptacles in islands and peninsulas occurs with renovation/alteration projects; this is not a new building element per N.J.A.C. 5:23-6.9. Many have mistakenly interpreted that a newly installed island or peninsula in an existing dwelling as being a "new building element" requiring receptacles in this location. As noted, this is incorrect. Also, it should be noted that the Materials and Methods portion of the rehab subcode at N.J.A.C. 5:23-6.8 deletes Article 210.52. However, if there was an island or peninsula prior to the rehab work and it had outlets originally installed, then an installer must, at the bare minimum, maintain what was originally there.

I hope this gets everyone back on the same ground and no one has to be on an island (or peninsula)!

Source: Scott Borsos
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Domestic Cooking Appliances and Exhaust Equipment: Other than Group R

The installation of domestic cooking appliances and domestic cooking exhaust systems in occupancies other than residential uses (Groups other than Group R) is nothing new. Sections 505.6 and 917.2 of the 2021 International Mechanical Code (2021 IMC) provide clear language for the application of domestic cooking appliances and exhaust equipment. And remember, any term in italics is defined in Section 202 of the 2021 IMC; see *Commercial Cooking Appliances*, where it draws a clear line that separates "commercial food service establishments" and "domestic household cooking."

(Continued on next page)

(Domestic Cooking Appliances and Exhaust Equipment: Other than Group R)

Commercial Cooking Appliance: Appliances used in a commercial food service establishment for heating or cooking food. For the purpose of this definition, a commercial food service establishment is where food is prepared for sale or is prepared on a scale that is by volume and frequency not representative of domestic household cooking.

As you can see, *Commercial Cooking Appliance* does not reference the group classification of the building or space in which the cooking appliance will be installed, but instead focuses more on the cooking operation itself for determining what types of cooking appliance and exhaust equipment are required. Based on this definition, restaurants, bakeries, school cafeteria kitchens, catering facilities, and culinary institutions represent commercial food service establishments. In these establishments, the 2021 IMC requires commercial cooking appliances and exhaust equipment because food is prepared for sale, and/or the volume and frequency of cooking in these occupancies is not representative of domestic household cooking.

On the other hand, employee breakrooms and home economics (life sciences) classrooms are a couple of examples of domestic household cooking areas where one would expect to see domestic cooking appliances and exhaust equipment because food is not prepared for sale, and/or the volume and frequency of cooking is representative of domestic household cooking.

However, as the 2021 IMC commentary explains, things become “muddy when the cooking is large-scale and frequent, but food is not sold. Consider charity kitchens, some church kitchens, and some institutional occupancies. If food is not being sold, then other considerations such as volume and frequency of cooking must dictate what is commercial because as the volume and frequency increase, so too do the hazards associated with such cooking.”

The implications for not having the proper cooking equipment for a specific type of cooking operation are twofold. For example, if commercial cooking appliances were installed in a home economics classroom, it would be potentially unsafe for the students to utilize because of the higher surface operating temperatures, uninsulated oven doors, and lack of child-safe push-to-turn knobs. On the other hand, installing a domestic cooking appliance in a commercial food service establishment could potentially overtax the domestic cooking appliance, resulting in a potential failure of the appliance. As the 2021 International Fuel Gas (2021 IFGC) states at Section 623.2, “Cooking appliances designed, tested, listed and labeled for use in commercial occupancies shall not be installed within dwelling units or within any area where domestic cooking operations occur.” The commentary for this section further explains, “Commercial cooking appliances are tested and labeled to different standards than those listed for domestic use. Commercial cooking appliances generally are not insulated to the same level, have higher surface operating temperatures and require a much greater clearance to combustible material. The safety measures inherent to household cooking appliances, such as child-safe push-to-turn knobs and insulated oven doors, are not usually found in commercial cooking appliances.”

As far as the exhaust system is concerned, it is quite simple: domestic cooking appliances = domestic exhaust system in accordance with the 2021 IMC, Section 505. As the 2021 IMC provides at Section 505.6, “In other than Group R occupancies, where domestic cooktops, ranges, and open-top broilers are used for domestic purposes, domestic cooking exhaust systems shall be provided.”

In summary, when determining the type of cooking appliances that should be installed, it is important to focus on the cooking operation itself rather than on the group classification of the building or space. Code officials should be cautious in requiring commercial cooking appliances in areas where domestic cooking appliances should be installed, as domestic cooking appliances’ construction and safety features play an important role in keeping the user safe. And finally, domestic cooking appliances = domestic exhaust system.

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Energy Storage Systems: General Requirements and Exceptions

Oftentimes when looking at a section of the UCC, we as code officials can drill down into the applicable subsection and forget to start from the beginning, or the "charging text," which provides important context and requirements before moving into the subsections. The beginning of code sections typically provides general requirements and, in some cases, exceptions to the general requirements. Specifically, the New Jersey 2021 International Residential Code (2021/IRC) states at section R328.1, General:

Energy storage systems (ESS) shall comply with the provisions of this section.

Exceptions:

1. ESS listed and labeled in accordance with UL 9540 and marked "For use in residential dwelling units" where installed in accordance with the manufacturer's instructions and NFPA 70.
2. ESS less than 1 kWh (3.6 megajoules).

Based on the above, if one were to install an ESS that meets the specified criteria of exceptions 1 or 2, then the additional provisions of Section R328 do not apply. That includes the fire detection requirements found at Section R328.7. Without reading the general requirements at the beginning of this section, code officials may unintentionally enforce all the provisions of this section.

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