Construction Codes Advisory Council



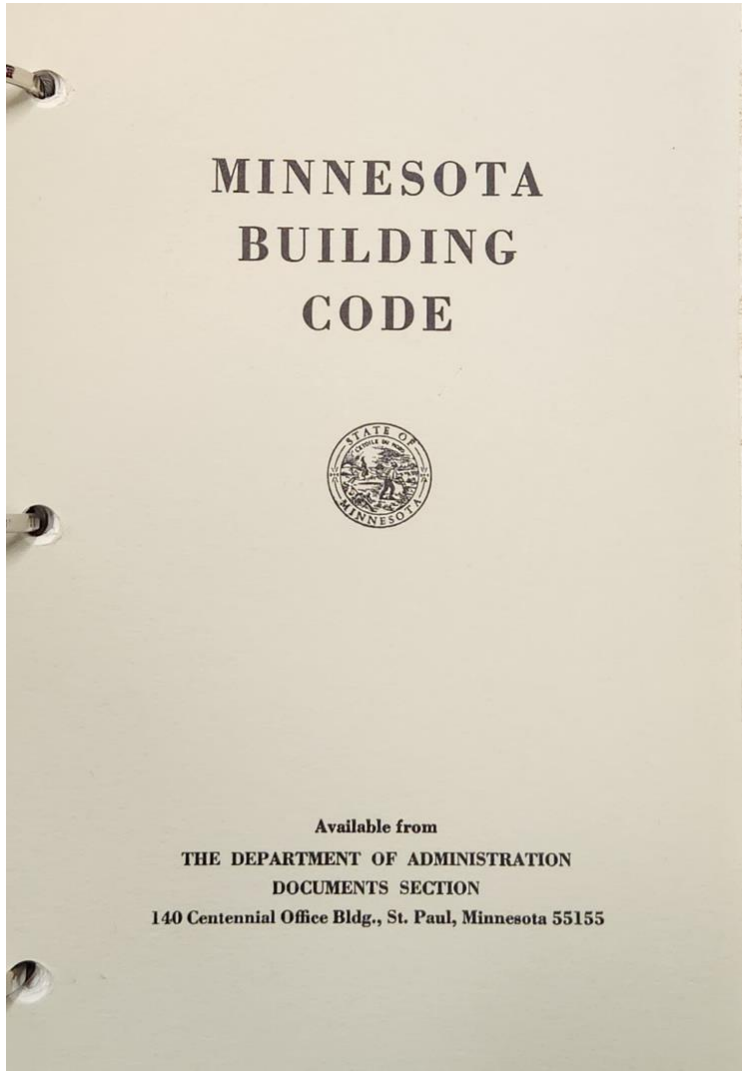
DEPARTMENT OF LABOR AND INDUSTRY
Construction Codes Advisory Council (CCAC)

Sept. 29, 2022

Department/Legislative Updates
Interim Deputy Commissioner Perushek

Division Updates
Scott McLellan

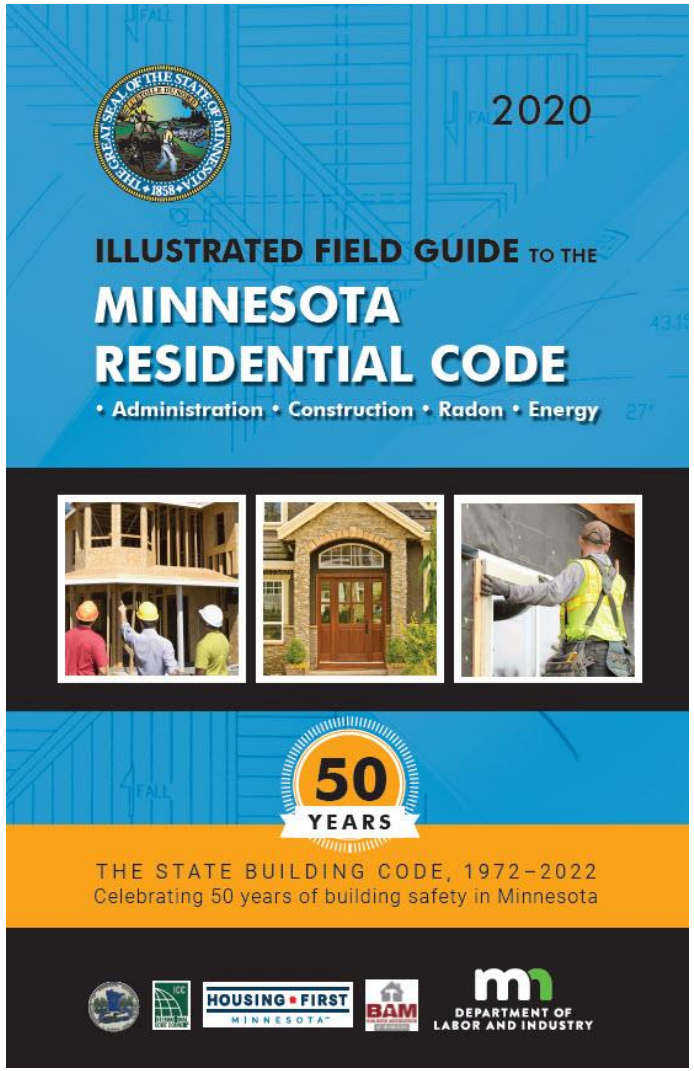
50th Anniversary of the State Building Code



The State Building Code is 50!

- On July 1, 1972, the first State Building Code became effective in Minnesota, superseding the individual codes of all cities and towns throughout the state.
- This past July 1, 2022, marked the 50-year anniversary.

50th Anniversary of the State Building Code



To commemorate the 50-year milestone anniversary, we will be introducing this *Illustrated Field Guide to the 2020 Minnesota Residential Code*, a special illustrated version of the more common provisions contained in the *Minnesota Residential Code*.

50th Anniversary of the State Building Code

We wanted to see if 50 years later we could do a better job of helping others understand our codes, and ultimately bring greater safety to our homes by creating a hybrid version that is part code, part explanation and part illustration.

FIGURE 8-1 A spiral stairway is one type of stair permitted as a means of egress.

ROOM AREAS

Though most homes will far exceed the minimum requirements, the MRC recognizes the need for basic living spaces. The code requires habitable rooms other than kitchens to be 70 square feet or larger, with the smallest dimension no less than 7 feet. [Ref. R304]

CEILING HEIGHT

Adequate ceiling height contributes to a healthy living environment and provides the ability to move about and safely exit the building. The general rule establishes a minimum ceiling height of 7 feet for habitable space and hallways in a dwelling (Figure 8-2). The code allows for sloped ceilings, provided that half of the required room area accommodates the 7-foot height. Reductions are also permitted in basements, laundry rooms and bathrooms. [Ref. R305]

See the 2020 *Minnesota Residential Code* for specific requirements and exceptions for new buildings, basements of new buildings, and alterations to existing basements.

https://codes.iccsafe.org/content/MNRC2020P1/chapter-3-building-planning#MNRC2020P1_Ch03_SecR305

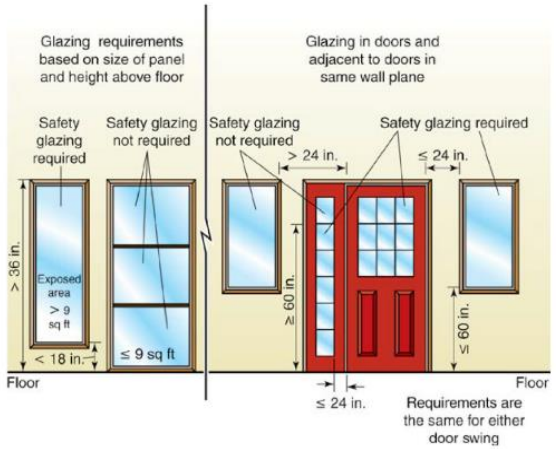


FIGURE 8-23 Safety glazing locations

SAFETY GLASS

To prevent serious injury from shards of breaking glass, the MRC identifies seven specific locations as subject to impact by people and therefore hazardous for the installation of glazing. For example, glass in doors and adjacent to doors has an increased likelihood of accidental breakage due to actions to open and close the door and the movement of the door itself. Large panels of glass lack the visual cues or physical barriers to prevent people from accidentally walking into them. Glass adjacent to stairs is considered in a hazardous location because of the increased chances of a misstep or fall. Examples of hazardous locations subject to human impact and requiring safety glazing when glazing is installed are illustrated in Figures 8-23 through 8-29. [Ref. R308.4]

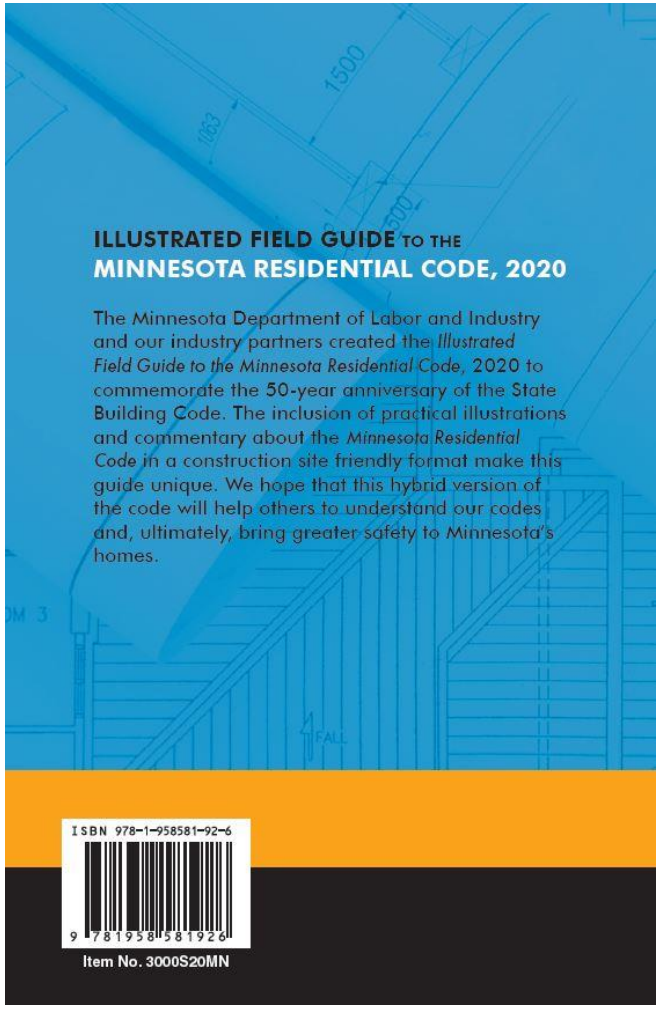
Safety glazing, typically tempered or laminated glass, must pass the test requirements and be classified in accordance with the applicable referenced standard based on the location of the glazing. Polished wired glass is not permitted in hazardous locations requiring safety glazing, including

50th Anniversary of the State Building Code

Our 50-year commemoration will culminate at the Institute for Building Officials in January where the theme will be

50 Years of the State Building Code
Past, Present, and Future

We will look back on what the code was originally supposed to accomplish, review progress we've made to date in making buildings safe, and what the future looks like with technologies available to make the processes more efficient.

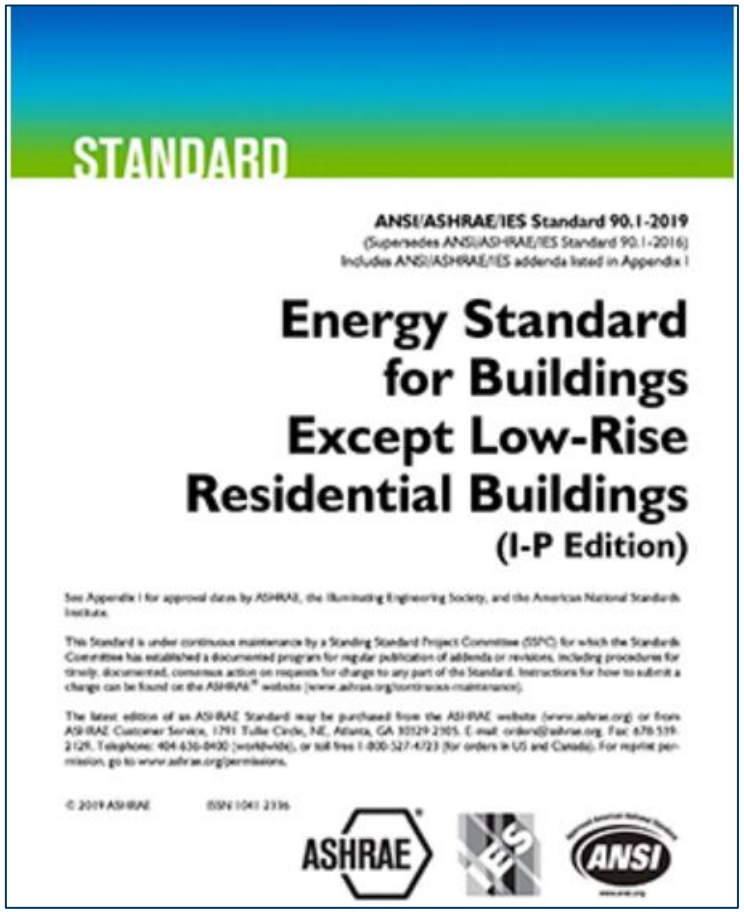


DEPARTMENT OF LABOR AND INDUSTRY

Commercial Energy Code Adoption
Amanda Spuckler

Commercial Energy Code Adoption

- Adopts ASHRAE 90.1-2019 with amendments
- Dual Notice was published in the State Register on September 19, which begins a 30-day comment period that ends on October 19
- Proposed rule and SONAR are available on the rulemaking docket: https://www.dli.mn.gov/about-department/rulemaking/rulemaking-docket-minnesota-rules-chapter-1323-0
- The rule will be effective 270 days from the date the Notice of Adoption is published in the State Register

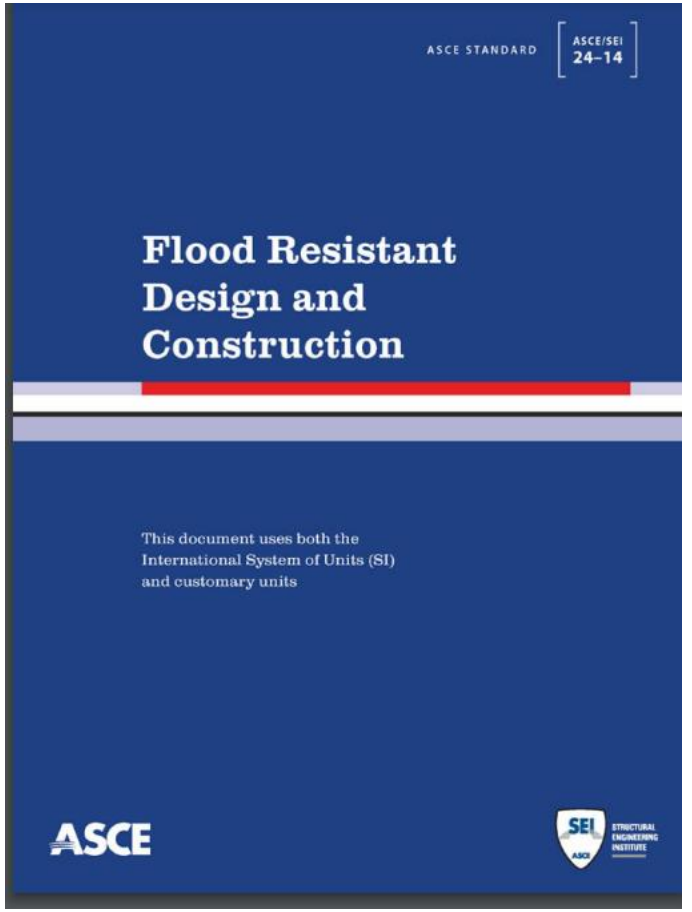


DEPARTMENT OF LABOR AND INDUSTRY

Floodproofing Code Adoption
Amanda Spuckler

Floodproofing Code Adoption

- Adopts ASCE 24-2014 Flood Resistant Design and Construction with amendments
- Proposed rule will include administrative provisions and be consistent with FEMA NFIP requirements as well as MN DNR floodplain management rules and existing MN practices
- Request for Comments was published in the State Register and the Department continues to accept comments
- Rulemaking docket: https://www.dli.mn.gov/about-department/rulemaking/rulemaking-docket-minnesota-rules-chapter-1335

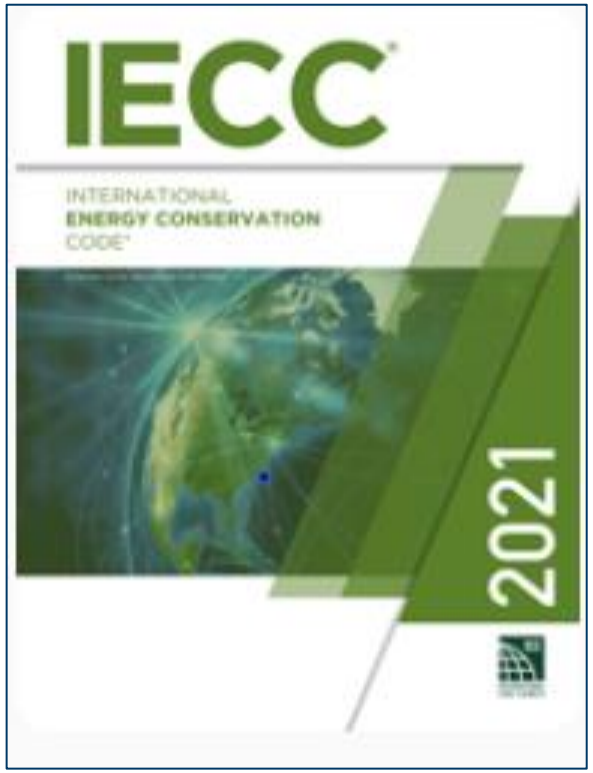


DEPARTMENT OF LABOR AND INDUSTRY

Residential Energy Code Informational Hearing
Amanda Spuckler

Residential Energy Code Informational Hearing

- An informational hearing was held on Aug. 23 regarding the appropriateness of adopting the 2021 IECC
- Public comment period ended Sept. 12; rebuttal period Sept. 19
- ALJ will issue report and recommendations in mid-October
- DLI Commissioner will review the recommendations and decide whether to adopt the 2021 IECC
- Updates will be posted to the rulemaking docket at: https://www.dli.mn.gov/about-department/rulemaking/rulemaking-docket-minnesota-rules-chapter-1322-0



DEPARTMENT OF LABOR AND INDUSTRY

New Business – Legislation Review & Comment

Licensing
Charlie Durenberger

Licensing

Issue: Current statute allows for refund of Contractor Recovery Fund (CRF) fee only if a residential building contractor or remodeler license is not *renewed*

Proposed resolution: Allow CRF fee to be refunded if license is not *issued* or renewed

326B.092 FEES.

Subd. 6. **Fees nonrefundable.** Application and examination fees, license fees, license renewal fees, and late fees are nonrefundable except for:

(3) if the license is not issued or renewed, the contractor recovery fund fee and any additional assessment paid under subdivision 7, paragraph (e).

Licensing (cont.)

Issue: Individuals who fail a CCLD exam must currently wait 30 days from the date CCLD sends out notification

Proposed resolution: Change to 30 days *from date of the failed exam+*

326B.093 LICENSES REQUIRING EXAMINATION ADMINISTERED BY COMMISSIONER.

Subd. 4. **Examination results.** ...If the application is denied because of the applicant's failure to receive a passing score on the examination, then the applicant cannot submit a new application for the license until at least 30 days after the ~~notification of denial~~ <u>date of the failed examination</u>

Licensing (cont.)

Issue: License reinstatement fees are currently $100

Proposed resolution: Reduce fees to $50 or $25

326B.096 REINSTATEMENT OF LICENSES.

Subd. 1. **Reinstatement after revocation.** (a) If a license is revoked under this chapter and if an applicant for a license needs to pass an examination administered by the commissioner before becoming licensed, then, in order to have the license reinstated, the person who holds the revoked license must:

(2) pay a $~~100~~50 reinstatement application fee and any applicable renewal license fee; and

Licensing (cont.)

Subd. 2. **Reinstatement after suspension.** If a license is suspended, then, in order to have the license reinstated, the person who holds the suspended license must:

(2) pay a $~~100~~50 reinstatement application fee and any applicable renewal license fee

Subd. 3. **Reinstatement after voluntary termination.** A licensee who is not an individual may voluntarily terminate a license issued to the person under this chapter. If a licensee has voluntarily terminated a license under this subdivision, then, in order to have the license reinstated, the person who holds the terminated license must:

(2) pay a $~~100~~25 reinstatement application fee and any applicable renewal license fee;

Licensing (cont.)

Issue: Current statute requires the responsible licensed individual (RLI) for a technology systems contractor (TSC) to be a licensed power limited technician (PLT), but a licensed master electrician can do all of the work of a PLT

Proposed resolution: Amend definition of TSC to allow the RLI for a TSC to be a PLT *or a licensed master electrician*

326B.31 DEFINITIONS.

Subd. 30. Technology system contractor. "Technology system contractor" means a licensed contractor whose responsible licensed individual is a licensed power limited technician or licensed master electrician.

Licensing (cont.)

Issue: Statute relating to residential building contractor (RBC) license requirements for flippers is confusing and difficult to enforce

Proposed resolution: Clarify when an RBC license is required for owners building or improving homes for resale or speculation

326B.805 LICENSING REQUIREMENTS.

Subd. 6. Exemptions. The license requirement does not apply to:

(3) an owner of residential real estate who builds or improves ~~any structure on~~ residential real estate~~,~~ if the owner occupies, will occupy for residential purposes,

Licensing (cont.)

326B.805 LICENSING REQUIREMENTS (cont.)

or will retain ownership for rental purposes upon completion of the building or improvement ~~building or improving is performed by the owner's bona fide employees or by individual owners personally~~. This exemption does not apply to an owner who constructs or improves ~~property~~ residential real estate for purposes of resale or speculation ~~if the building or improving is performed by the owner's bona fide employees or by individual owners personally~~. An owner of residential ~~building contractor or residential remodeler~~ real estate will be presumed to be building or improving for purposes of speculation if the ~~contractor or remodeler~~ owner constructs or improves more than one property within any 24-month period;

Window Cleaning Safety
Greg Metz

Window Cleaning Safety

Issue: Current statute requires window cleaning anchors on all buildings that are four or more stories in height. Window cleaning anchors are expensive and support only two of seven nationally recognized ways to safely clean windows.

Proposed resolution: Allow all nationally recognized safe window cleaning methods to be acceptable and develop rules regarding their application.

Window Cleaning Safety

326B.106 General powers of Commissioner of Labor and Industry.

Subd. 4. **Special requirements. (existing language)**

(m) Window cleaning safety. ~~The code must require the installation of dedicated anchorages for the purpose of suspended window cleaning on (1) new buildings four stories or greater; and (2) buildings four stories or greater, only on those areas undergoing reconstruction, alteration, or repair that includes the exposure of primary structural components of the roof. The commissioner may waive all or a portion of the requirements of this paragraph related add words, etc. to reconstruction, alteration, or repair if the installation of dedicated anchorages would not result in significant safety improvements due to limits on the size of the project, or other factors as determined by the commissioner.~~

Window Cleaning Safety

326B.106 General powers of Commissioner of Labor and Industry.

Subd. 4. **Special requirements. (proposed language)**

(m) **Window Cleaning Safety.** The commissioner shall adopt rules requiring window cleaning safety features as part of the State Building Code. Window cleaning safety features shall be provided for all windows on (1) new buildings where determined by the code, and (2) existing buildings undergoing alterations where both of the following conditions are met: a) where windows don't currently have safe window cleaning features and b) the proposed work area being altered can include provisions for safe window cleaning. The rules shall require compliance with a nationally recognized standard for window cleaning.

Window Cleaning Safety

- Adopt by Rule the ANSI/IWCA I-14.1 Window Cleaning Safety Standard
- Safe window cleaning for all new windows, buildings of any height
- Application of Minnesota Conservation Code for Existing Buildings
- Safe window cleaning where substantial improvement is made
- Rules to define building-related support for safe cleaning methods

DEPARTMENT OF LABOR AND INDUSTRY

Existing Building Energy
Greg Metz

Existing Building Energy

Issue: Buildings are the second-biggest energy consumer behind transportation, accounting for 41% of the statewide energy use. The life span of a building can be 50-100 years. Lowering energy consumption is critical to meeting statewide energy reduction goals. The current statute does not adequately address energy conservation for existing buildings so that the statewide goals can be met.

Proposed resolution: Adopt an additional energy efficiency standard that is more tailored to specific building uses and Minnesota's climate zones. Develop rules to apply the standards to existing commercial buildings undergoing additions, alterations, or changes in use to higher energy intensity levels.

Existing Building Energy

326B.106 General powers of Commissioner of Labor and Industry.

Subd. 16 **Energy efficiency in existing buildings.**

The commissioner shall adopt rules for energy efficiency that establish energy use targets for existing buildings that undergo additions, alterations, or a change in use. This does not apply to historic buildings, buildings used as residential townhouses, residential one- and two-family dwellings, and excludes energy used for manufacturing or industrial purposes. Energy use intensity targets shall be based upon building uses as identified in nationally recognized standards and adjusted for Minnesota climate zones.

Existing Building Energy

- Adopt ASHRAE Standard 100-2019 by Rule
- ONLY additions, alterations, and change of use to higher energy intensity
- NOT applied to manufacturing, industrial, or agricultural processes
- Consider setting scope limits for change of use

DEPARTMENT OF LABOR AND INDUSTRY

EV Charging Stations
Greg Metz

EV Charging Stations

Issue: Transportation is the single largest cause of air pollution in the state. One of the largest barriers to electric vehicle purchase is the lack of a location to charge the vehicle.

Proposed resolution: Add scoping requirements for electric vehicle charging to the building code.

Electric vehicle charging. The code shall require a minimum number of electric vehicle-ready spaces, electric vehicle capable spaces, and electric vehicle charging stations either within or adjacent to new commercial and multifamily structures that provide on-site parking facilities. Residential structures with fewer than four dwelling units are exempt from this subdivision.

EV Charging Stations

- **Electric vehicle capable space**. "Electric vehicle capable space" means a designated automobile parking space that has electrical infrastructure, including but not limited to raceways, cables, electrical capacity, and panelboard or other electrical distribution space, necessary to install an electric vehicle charging station.
- **Electric vehicle charging station**. "Electric vehicle charging station" means a designated automobile parking space that has a dedicated connection for charging an electric vehicle.
- **Electric vehicle ready space**. "Electric vehicle ready space" means a designated automobile parking space that has a branch circuit capable of supporting the installation of an electric vehicle charging station.
- **Parking facilities**. "Parking facilities" includes parking lots, garages, ramps, or decks.

EV Charging Stations

- Specific to new construction
- Target where people park for longer periods
- Meet the 20% EV goal by 2030 for GHG reduction
- Build in accessibility
- Incorporate future expansion capacity

DEPARTMENT OF LABOR AND INDUSTRY

Commercial Energy Code
Greg Metz

Commerical Energy Code

Issue: Buildings are the second-biggest energy consumer behind transportation, accounting for 41% of the statewide energy use. The state has a goal for all new construction to be net-zero by 2036 but the current energy code conservation trajectory is not consistent with that goal.

Proposed resolution: Accelerate the conservation of energy in new commercial buildings by ensuring each new edition of the commercial energy code will generate a minimum of 8% greater efficiency over the previous edition. This will assist the State in achieving the goal of new buildings becoming net-zero (with renewables) by 2036.

Commercial Energy Code

326B.106 COMMERCIAL ENERGY CODE

Subd. 1, Adoption of Code

(c) Beginning with the 2018 edition of the model building codes and every six years thereafter, the commissioner shall review the new model building codes and adopt the model codes as amended for use in Minnesota, within two years of the published edition date. The commissioner may adopt amendments to the building codes prior to the adoption of the new building codes to advance construction methods, technology, or materials, or, where necessary to protect the health, safety, and welfare of the public, or to improve the efficiency or the use of a building.

Commercial Energy Code

326B.106 COMMERCIAL ENERGY CODE

(d) Notwithstanding paragraph (c), the commissioner shall act on each new model residential energy code and the new model commercial energy code in accordance with federal law for which the United States Department of Energy has issued an affirmative determination in compliance with United States Code, title 42, section 6833. The commissioner shall act on the new model commercial energy code by adopting each new published edition and amending it as necessary to achieve a minimum of eight percent energy efficiency. The commissioner may adopt amendments prior to adoption of the new energy codes, as amended for use in Minnesota, to advance construction methods, technology, or materials, or, where necessary to protect the health, safety, and welfare of the public, or to improve the efficiency or use of a building.

DEPARTMENT OF LABOR AND INDUSTRY

Assisted Living
Scott McKown

Assisted Living

Issue: Current statute does not include Assisted Living Facilities as a "State licensed facility"

Proposed resolution: Amend definition to include Assisted Living Facilities

326B.103

Subd. 13. State licensed facility. Means a building and its grounds licensed by the state as a hospital, nursing home, supervised living facility, freestanding outpatient surgical center, correctional facility, boarding care home, ~~or~~ residential hospice, or assisted living facility, including assisted living facility with dementia care.

Assisted Living (cont.)

- Each of these uses cares for individuals who are not capable of caring for themselves. Adding Assisted Living and Assisted Living with Dementia Care to this list is a natural extension of these types of care facilities.
- Currently there is no construction oversight for Assisted Living or Assisted Living Dementia Care Facilities statewide because areas of the state have not adopted the State Building Code, so there is no local enforcement. Charging DLI/CCLD with jurisdiction over these facilities will ensure that code review and field inspections are provided for these facilities.
- MDH Engineering Division is supportive of DLI/CCLD jurisdiction over Assisted Living facilities.

Boiler Inspections
Todd Green & Howard Berny

Boiler Inspections

Issue: Current exception parameters are identical for both hot water supply boilers and commercial industrial water heaters. These are two distinctly different devices that operate at much different temperatures.

Proposed resolution: Amend this exception. Define hot water supply boilers and potable water heaters by their temperature limits and lowering the input threshold to 200,000 BTU/HR. This would match current requirements of the National Boiler Inspection Code.

Boiler Inspections

Existing definitions:

- **Hot-Water Supply Boiler** — A boiler that furnishes hot water to be used externally to itself at a pressure less than or equal to 160 psig (1,100 kPa gage) or a temperature less than or equal to 250°F (120°C) at or near the boiler outlet.

- **Potable Water Heaters** — A corrosion resistant appliance that includes the controls and safety devices to supply potable hot water at pressure not exceeding 160 psig (1,100 kPa) and temperature not in excess of 210°F (99°C).

Boiler Inspections

EXCEPTIONS 326B.988

(a)(14) hot water supply boilers ~~(water heaters)~~ not exceeding a heat input of ~~500,000~~ 200,000 BTU per hour and a water temperature of ~~210~~ 250 degrees Fahrenheit, ~~a nominal water capacity of 120 gallons, or a pressure of 160 psig;~~ or potable water heaters not exceeding a heat input of 200,000 BTU per hour and a water temperature of 210 degrees Fahrenheit;

A copy of this presentation can be found on the CCAC's webpage

http://www.dli.mn.gov/about-department/boards-and-councils/construction-codes-advisory-council