

# CCLD REVIEW

Construction Codes and Licensing Division • Minnesota Department of Labor and Industry • Spring 2018

## Working groups reviewing changes to model codes

The first phase of the Construction Codes Advisory Council's (CCAC) recommendation to the department about the Minnesota State Building Code is almost complete.

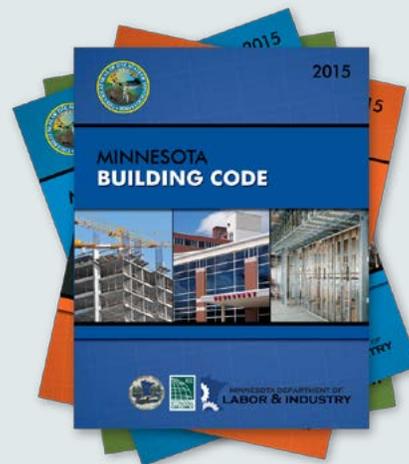
The codes provide building standards to regulate the design, construction, addition, alteration, repair, use and location of buildings and structures. They are based on International Code Council model codes (I-Codes) and contain Minnesota-specific construction provisions for structural, life-safety, fire-safety and moisture protection.

The process began in January 2018 when the CCAC established Technical Advisory Groups (TAGs) to review seven of the 2018 I-Codes and make recommendations for their potential adoption with amendments to Minnesota Rules. Three additional TAGs were tasked with reviewing the administrative requirements of the model codes, fire and building code compatibility and the structural provisions of the I-Codes. Each TAG consists of a minimum of six members and two of them are Department of Labor and Industry staff members.

### Review recommendations and comment

When the TAGs complete their review of the 2018 I-Codes, a report will be submitted to the CCAC and stakeholders for review and comment. The CCAC will review the report and comments to make recommendations for the adoption of the 2018 I-Codes and potential amendments to Minnesota Rules. Then, the next phase begins as DLI staff prepare drafts of each rule for possible adoption.

View TAG meeting notes, sign up for email updates and follow the process at [www.dli.mn.gov/Ccac.asp](http://www.dli.mn.gov/Ccac.asp).



## Spring Seminars on Residential Building Construction begin April 11, 2018

*Seminars offered throughout Minnesota and include continuing education for licensees*

The 2018 Spring Seminar on Residential Buildings features the construction of residential buildings. This one-day seminar reviews the mechanical provisions of the Residential Energy Code including heat loss, equipment sizing, and combustion, make-up and ventilation air. It will also address the energy requirements for residential plumbing and electrical systems, and an in-depth review of shallow protected foundations including: air freezing index, methods of frost protection, insulation requirements and the prescriptive methods and standards of constructing new homes using this type of foundation system.

### When and where

The seminar is hosted at nine locations throughout Minnesota from 7:30 a.m. to 4 p.m., April 11 to May 10, 2018. It includes continuing education for residential contractors, building officials and manufactured home installers. Learn more at [www.dli.mn.gov/CCLD/Education.asp](http://www.dli.mn.gov/CCLD/Education.asp).

### Related training opportunity:

The next Building Official-Limited Course is June 4-8, 2018. Visit [www.dli.mn.gov/CCLD/PDF/official\\_enrollment.pdf](http://www.dli.mn.gov/CCLD/PDF/official_enrollment.pdf) for details.

# Safety committees required for many employers

*Resources are available to create, maintain committees*

State law requires all employers with more than 25 employees to establish a joint labor-management safety and health committee for their workplace.

Some employers with 25 or fewer employees that meet specific workers' compensation requirements must also establish a joint labor-management safety and health committee.

Minnesota OSHA Workplace Safety Consultation can help employers develop an effective safety committee and maintain the effectiveness of an existing safety committee. Services are provided at no cost and include interpretation of OSHA standards, training in self-inspection techniques, help in preparing and presenting specific training and education programs, accident investigation and more.

## Learn more

- On the web: [www.dli.mn.gov/WSC/Lmsc.asp](http://www.dli.mn.gov/WSC/Lmsc.asp)
- Email: [osha.consultation@state.mn.us](mailto:osha.consultation@state.mn.us)
- Call: (651) 284-5060

## Schedule of board and council meetings

Below is a schedule of board and council meetings at DLI. Visit [www.dli.mn.gov/Boards.asp](http://www.dli.mn.gov/Boards.asp) to view meeting minutes, agendas, rulemaking documents and schedules for these meetings and additional boards and councils.

### Board of Electricity [www.dli.mn.gov/Boe.asp](http://www.dli.mn.gov/Boe.asp)

- April 10, 2018
- July 10, 2018
- Oct. 9, 2018

### Board of High-Pressure Piping [www.dli.mn.gov/Bohpps.asp](http://www.dli.mn.gov/Bohpps.asp)

- April 12, 2018
- July 12, 2018
- Oct. 11, 2018

### Plumbing Board [www.dli.mn.gov/Pb.asp](http://www.dli.mn.gov/Pb.asp)

- April 17, 2018
- July 17, 2018
- Oct. 16, 2018

### Rulemaking notices

Sign-up to receive notices of agency rule proceedings from DLI. Visit [www.dli.mn.gov/Rulemaking.asp](http://www.dli.mn.gov/Rulemaking.asp) for details and to register.

*CCLD Review* is a quarterly publication of the Minnesota Department of Labor and Industry.

Receive email notification when an issue is available by [subscribing online](#).

## Contact information

### CCLD main contact info

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Fax: (651) 284-5746

### Visit the [Contact Us](#) page

### Licensing information

[DLI.License@state.mn.us](mailto:DLI.License@state.mn.us)

### Business/contractor licenses and bonds: (651) 284-5034

(Including: electrical, HPP, plumbing, residential, manufactured structures, mechanical bonds, technology system, water conditioning)

### Personal licenses and certificates: (651) 284-5031

(Including: boiler engineers, electricians, plumbers, power limited technicians, pipefitters, unlicensed individuals, building officials)

### Electrical information

Phone: (651) 284-5026  
Fax: (651) 284-5746

[DLI.Electricity@state.mn.us](mailto:DLI.Electricity@state.mn.us)

### Boiler, high-pressure piping, boats-for-hire inspection

Phone: (651) 284-5544  
Fax: (651) 284-5737

[DLI.Code@state.mn.us](mailto:DLI.Code@state.mn.us)

### Plumbing information

Phone: (651) 284-5063  
Fax: (651) 284-5748

[DLI.Plumbing@state.mn.us](mailto:DLI.Plumbing@state.mn.us)

### License enforcement details

Phone: (651) 284-5069  
Fax: (651) 284-5746

[DLI.Contractor@state.mn.us](mailto:DLI.Contractor@state.mn.us)

### Contractor registration

Phone: (651) 284-5074  
[DLI.register@state.mn.us](mailto:DLI.register@state.mn.us)

## License enforcement: Residential contractor fined \$35,000

- A Minnesota-licensed high pressure piping (HPP) contractor and its master HPP pipefitter, both of Lyndhurst, Virginia, contracted a local project and obtained permits. Inspections revealed the failure of nearly every weld at the project. Investigators found the contractor and master pipefitter failed to ensure the work met Minnesota requirements and failed to supervise unlicensed workers. The HPP contractor was censured and fined \$9,500. The master pipefitter was censured and his license was suspended for six months.
- A residential building contractor that had its license revoked in 2016 – and was ordered to stop contracting for residential building projects – continued working without a license. The contractor accepted a \$5,000 down payment from a homeowner for a \$14,000 basement remodel, completed demo and rough framing and then abandoned the project. The contractor also accepted a \$20,000 down payment for an \$80,000 home addition project and never began work. The down payments were never refunded. The contractor was fined \$35,000 and again ordered to cease and desist from contracting activity.
- A Minnesota-licensed residential building contractor from Hudson, Wisconsin, was observed by a local building inspector performing unlicensed plumbing and electrical work while working on a residential project. The contractor was ordered to cease and desist from unlicensed activity and fined \$6,000 of which \$5,500 was stayed contingent on future compliance with licensing laws.



### Enforcement actions

View enforcement and license actions levied against licensees.

### More information

Summaries of all final CCLD enforcement actions are available at [www.dli.mn.gov/CCLD/Enforcement.asp](http://www.dli.mn.gov/CCLD/Enforcement.asp). Questions about specific enforcement actions should be directed to (651) 284-5069 or [DLI.contractor@state.mn.us](mailto:DLI.contractor@state.mn.us).

### Planning to hire a contractor? Make sure they're licensed

Before hiring a contractor, visit DLI's consumer web page for steps to take before signing a contract. Some of the topics include how to select a contractor, how to solicit bids, what to include in a contract and how to file a complaint against a contractor. View more information at [www.dli.mn.gov/CCLD/RBCconsumer.asp](http://www.dli.mn.gov/CCLD/RBCconsumer.asp).

## Free on-site safety and health consultations available

DLI offers a free consultation service called MNOSHA Workplace Safety Consultation to help employers find out about potential hazards at their worksites, improve safety management systems and apply for grants to abate safety standards.

The program targets small, high-hazard businesses. It is separate from the OSHA Compliance inspection activities and no citations are issued as part of a consultation visit.

### Learn more and request a consultation

- On the web: [www.dli.mn.gov/WSC/Assistance.asp](http://www.dli.mn.gov/WSC/Assistance.asp)
- Email: [osha.consultation@state.mn.us](mailto:osha.consultation@state.mn.us)
- Call: (651) 284-5060



# Plumbing frequently asked questions and answers

## PLUMBING CODE:

### **Can a hot water tempering device listed to Standard ASSE 1017 or CSA B125.3 be used to limit a maximum water temperature of 110 F serving public-use lavatories to meet Plumbing Code Section 421.2?**

No. A device listed to ASSE 1017 is not approved for this use. An ASSE 1017 device is intended to provide thermostatic mixing at the heating source rather than the point of use protection. Devices meeting standard CSA B125.3 no longer have the applicable temperature limitation requirements necessary to provide the correct protection and is not acceptable for that use. A thermostatic mixing device listed to Standard ASSE 1070 must be used for public-use lavatories.

### **What is an acceptable shower liner that meets the Plumbing Code?**

Site-built shower receptors and tiled showers must be lined with materials listed to an approved standard acceptable to the administrative authority. Besides the approved sheet lead or sheet copper (Plumbing Code Section 408.7), lining membranes listed to ASTM D 4551 or ASTM D4068 have also been accepted as alternatives for installation. Receptors must be tested to ensure they are watertight in accordance with the Plumbing Code. See Plumbing Code Section 408.7 for more information.

## EXTERIOR WATER AND SEWER WORK:

### **Who can perform the *installation* of outside water and sewer services within the property lines?**

Once site construction plans are properly submitted and approved, the following individuals are allowed to perform installation of water and sewer services regulated by the Plumbing Code:

- **Licensed plumbing contractors**
- **Pipe-laying utility contractors that are registered and bonded with DLI.** A contractor must employ at least one individual who has completed approved pipe-laying training to file a bond. When on a jobsite, individuals who have completed training must provide a valid pipe-layer card upon request at the time of inspection. Bonded pipe layers may not design.
- **Minnesota Pollution Control Agency (MPCA)-licensed subsurface sewage treatment system (SSTS) installers.** SSTS installers may perform work on exterior water and sewer installations anywhere in the state and must provide a valid pipe layer card upon request at time of inspections. These individuals may not design.

### **What work are septic professionals authorized to do for buildings served by SSTS systems?**

Legislation from 2015 allows MPCA-licensed septic professionals to perform work on *building sewers connected to SSTS* as follows:

- **MPCA-licensed SSTS designers** may design building sewers connected to SSTS and submit plans to the administrative authority for review and approval according to Plumbing Code standards. Only those who are Minnesota-licensed professional engineers may design water services and building sewers on municipal service connections.
- **MPCA-licensed SSTS installers** may request permits and install building sewers connected to SSTS. These installers may also perform work on exterior sewer and water installations anywhere in the state. They must notify the plumbing administrative authority when work requires a plumbing inspection.
- **MPCA-licensed SSTS inspectors** may inspect building sewers on SSTS according to the standards of the Plumbing Code when acceptable to the plumbing administrative authority.

SSTS professionals must design and perform installation of building sewers connected to SSTS for compliance with the Minnesota Plumbing Code, Chapter 4714. For more information about SSTS and the Minnesota Plumbing Code visit [https://www.pca.state.mn.us/sites/default/files/wq-wwists4-43\\_0\\_0.pdf](https://www.pca.state.mn.us/sites/default/files/wq-wwists4-43_0_0.pdf).

# Submit a proposal to perform electrical inspections for DLI

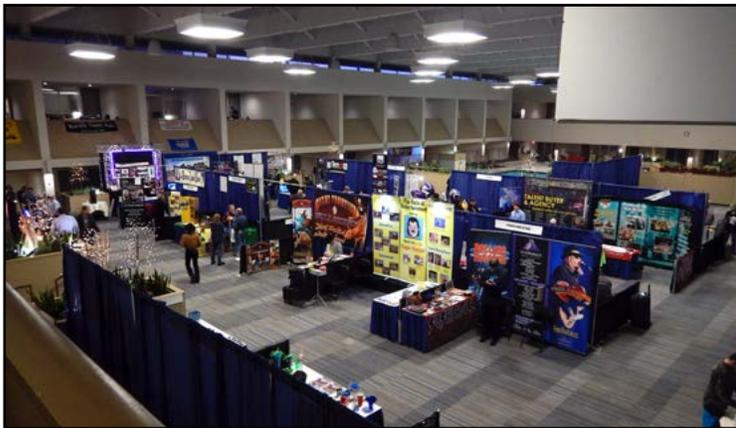
DLI is currently accepting proposals to perform electrical inspections in several regions of Minnesota. Inspectors must be licensed as a journeyworker or master electrician and provide a \$1,000 bond. The contract period is July 1, 2018, through June 30, 2019.

## Submission details

- Download the Request for Proposals at [www.dli.mn.gov/CCLD/ElectricalInspect.asp](http://www.dli.mn.gov/CCLD/ElectricalInspect.asp). It defines inspection areas, lists minimum service requirements and explains the steps to submit a proposal.
- Proposals must be submitted by April 5, 2018.
- View frequently asked questions at [www.dli.mn.gov/CCLD/ElectricalInspect.asp](http://www.dli.mn.gov/CCLD/ElectricalInspect.asp).

## Questions?

Contact us at [dli.electricity@state.mn.us](mailto:dli.electricity@state.mn.us).



The trade show of the 2018 Minnesota Federation of County Fairs convention. DLI presented about electrical safety at Minnesota carnivals and fairs in January 2018.

## Electrical safety a priority at Minnesota's fairs and carnivals

Steven Dudley and Wade Schlie, DLI electrical representatives, conducted two presentations at the 2018 Minnesota Federation of County Fairs convention in January to help ensure electrical safety at area carnivals and fairs.

The presentations – one for members of fair boards and one for fair equipment owners and operators – described requirements related to licensing, inspection and electrical safety. DLI was also represented by Lisa Pazdernik, office and administrative specialist. After the presentations, staff met with the fair owners and fair board members to provide inspection and safety documentation for the 2018 fair season and answer questions.

## Grounding and bonding of solar for detached buildings

With the increased popularity of residential solar photovoltaic (PV) installations, the roofs of detached buildings are often a great place to install a solar PV system.

In Article 225 of the National Electrical Code (NEC), the general rule is that only one feeder is permitted to supply a detached building or structure. However, the NEC allows an additional feeder for interconnected power production sources, such as a solar PV system.

The current NEC requires that a newly installed feeder must include an equipment grounding conductor (four-wire feeder). Previously, the NEC allowed the grounded (neutral) conductor to be used to carry fault current back to the service equipment (three-wire feeder). View more about feeder arrangement at [www.dli.mn.gov/CCLD/PDF/eli\\_bulletin\\_multiple\\_feeders.pdf](http://www.dli.mn.gov/CCLD/PDF/eli_bulletin_multiple_feeders.pdf).

### More electrical code information

- Electrical codes and standards: [www.dli.mn.gov/CCLD/ElectricalCodes.asp](http://www.dli.mn.gov/CCLD/ElectricalCodes.asp)
- Questions or comments?: [dli.electricity@state.mn.us](mailto:dli.electricity@state.mn.us)

# Inspectors ensure electrical safety during Super Bowl LII events

CCLD's electrical representatives and contract electrical inspectors played an integral role in ensuring electrical safety for the February 2018 Super Bowl LII and related events in Minneapolis

Electrical Representative John McNamara led a team of three contract electrical inspectors to help ensure electrical safety at all of the event's venues. Inspector Patrick McMullen was in charge inside U.S. Bank Stadium, the IDS Center and the 1010 Building; John Thompson handled areas outside of and around U.S. Bank Stadium and Gerald Jones was responsible for Nicollet Mall and all of the Super Bowl Live events.



A temporary power disconnect and distribution panel outside Super Bowl LII events.

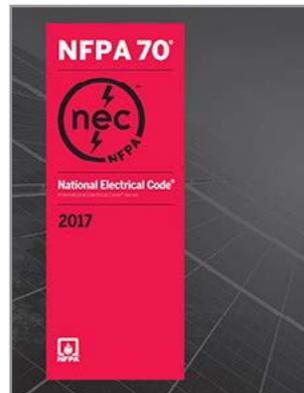
## Super Bowl LII electrical inspection facts:

- Four licensed electrical contractors were needed to install the permanent and portable electrical distribution for all of the downtown Minneapolis events.
- Multiple temporary services were deployed along Nicollet Mall for power distribution.
- Planning and meetings were conducted during the course of many months prior to the big event.
- More than 90 miles of portable electrical wiring was used.
- More than 200,000 feet of large portable-power distribution cable was deployed.
- Approximately 2 MW (megawatts) of temporary power was connected to Xcel Energy's underground vaults.
- Another 34 MW of generator power was distributed at several different venues.
- More than 80 generators were deployed or standing ready.
- Two large backup power systems were deployed to ensure backup power for the stadium and the TV broadcast.
- More than 40 small cell sites were setup to boost cell phone coverage and capacity.

## Current NEC includes 14 amendments, corrective changes

There currently are 14 tentative amendments for the 2017 National Electrical Code (NEC) and four errata.

The NEC may be amended through the issuance of Tentative Interim Amendments (TIA) or corrected by errata. The current code consists of the most recent edition of the document together with any TIA and errata. The National Fire Protection Association (NFPA) outlines the changes at <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70>.



## 2020 National Electrical Code

Minnesota's electrical installation and inspection standard is currently the 2017 NEC. The first draft of the 2020 NEC will be published on July 6, 2018. It incorporates the 2017 NEC and public input received for the 2020 draft. A second draft incorporating any additional comments and review will be published April 5, 2019. Visit <https://www.nfpa.org/> for more information.

## Staff attending NCEL electrical expo

Staff from DLI's Electrical Inspection Unit will be available at the North Central Electrical League (NCEL) Upper Midwest Electrical EXPO in April.

The event, at the Minneapolis Convention Center, includes many training and exhibitors related to the electrical fields. DLI's electrical inspection staff will be at booth 211.

**What:** NCEL North Central Electrical Expo

**When:** April 18-19, 2018

**Where:** Minneapolis Convention Center

**More:** <https://www.ncel.org/?id=21>