CCLD Review
Construction Codes and Licensing Division
Winter 2009/10

Budget update

# CCLD takes action to minimize budget impact

The Construction Codes fund is a State Government Special Revenue fund and not a General fund account. The Construction Codes and Licensing Division's (CCLD) services are reduced as reductions occur in the Construction Codes fund.

### $1.5 million Construction Codes transfer

During the 2007 session, the Legislature required DLI to transfer $1,627,000 by June 30, 2008; $1,515,000 by June 30, 2009; and $1,515,000 each year thereafter from the Construction Codes fund to the General fund (Chapter 135, Article 1, Section 16).

In the 2009 Legislative Session, DLI requested the elimination of the annual $1,515,000 transfer. The legislative intent was not to continue the transfer beyond the agency's consolidation of CCLD's activities. The ongoing transfer had reduced the operating funds necessary to support the division. Subsequently, Gov. Pawlenty included the elimination of the $1.5 million Construction Codes fund transfer in his budget bill and the House of Representatives passed this language in its funding bill.

One alternative considered to offset the $1.5 million transfer was an increase of $15 to the construction trades for each annual license or renewal fee. This increase was proposed because license fees are CCLD's most stable source of revenue.

The economic downturn in the construction industry has significantly impacted the Construction Codes fund. DLI estimates $5.3 million were lost in SFY'09, due to the annual transfer of $1.5 million, the additional legislative transfer of $2 million in June 2009 from the Construction Codes fund to the General fund and the Construction Codes fund's $1.7 million revenue shortfall is a result of the downturn in the economy.

### Recent changes at CCLD include:

DLI has taken action to minimize the impact by reducing expenses by $1.7 million. Including:

- laying off 11 CCLD staff members in September 2009, with two more full-time-equivalent reductions planned by June 20, 2010;
- eliminating eight currently vacant positions and using those dollars to support CCLD functions;
- reducing electrical inspector contracts by 5 percent, recalling and paying expired electrical permits and retaining selected inspection work to be performed by DLI staff members;
- canceling training and education opportunities; and
- reducing all other expenses (such as out-of-state travel).

These actions have limited CCLD's ability to work with the construction industry in the areas of code development, education and training, staff code assistance and contractor enforcement.

DLI needs to maintain a three-month operating-fund balance of $6M to cover its payroll and ongoing expense obligations. The Construction Codes operating fund balance is currently at $5.3M. This balance is not "surplus or carry forward" money.

CCLD continues to monitor all aspects of the budget, including revenues, expenses and outstanding obligations.

# License renewal procedures move to the Web

## Electrical/elevator contractors and residential contractors/remodelers must follow new procedures to obtain renewal forms online

Rather than print and mail license renewal forms as in past years, licensed residential building contractors, residential remodelers and electrical/elevator contractors must access their license renewal forms online from the Minnesota Department of Labor and Industry's Web site using the License Lookup feature available at www.dli.mn.gov/CCLD/LicVerify.asp.

## Contractors: Follow these steps to renew your license

1. Visit www.dli.mn.gov/ccld/LicVerify.asp and choose your license type. Note: Internet Explorer must be used to access renewal.
2. On the License Lookup Web page that follows, enter your license number in the search field and click "Search."
3. Click the link for "Detail" next to the corresponding business name.
4. Click the "Renewal Form" button on the license detail page to obtain the renewal form.
5. Follow the instructions on the license renewal form paying close attention to the documents and fees required for your particular license.
6. Compile the renewal form, appropriate documents and fee and mail to the address printed on the renewal form.

### Quick links and help:

- Visit the License Lookup Web page to access your renewal form
- Visit the Secretary of State's Web site to obtain a copy of the current year's registration
- For help with questions about the license renewal procedure, call (651) 284-5034

### Recommendations to ensure renewal application is complete:

Renewal applications are only considered received by DLI when they are complete. This means the correct fee is paid and all required documents are complete and accurate as submitted. Contractors can help themselves by doing the following:

- Submit the correct fee with the renewal application.
- Make sure the business entity's registration with the Minnesota Secretary of State is up-to-date by checking www.sos.state.mn.us (Business Nonprofits & UCC).
- Make sure the business entity's true (legal) name, and assumed name if used, is included on all applicable forms.
- If submitting a bond, make sure it has all required signatures and notarization.
- Submit all required forms (make sure they are filled out).

Depositing a license fee means the fee was received. It does not mean a license was granted, issued, or renewed.

# Repair work may trigger need for smoke alarm installation

**When does the 2006 International Residential Code (IRC) require smoke alarms to be installed when electrical, mechanical and plumbing alterations or repairs are made in existing dwellings?**

Minnesota Rules section 1309.0313 "Smoke Alarms" amends IRC section R313.2.1 and adds exception No. 3 for permits that are for electrical, mechanical and plumbing work.

> **R313.2.1 Alterations, repairs, or additions.**
> When alterations, repairs, or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings, and the smoke alarms shall be interconnected and hardwired.

**Exceptions:**
No. 3. Permits involving alterations or repairs to plumbing, electrical, and mechanical are exempt from the requirements of this section.

**But, there is an exception to the exception:** Minnesota Statutes 299F.362 (State Fire Marshal, Fire Code) permits a local governing body to adopt more stringent requirements for the installation of smoke detectors in a single-family residence than the State Building Code.

> **299F.362 SMOKE DETECTOR; INSTALLATION; RULES; PENALTY.**
>
> Subd. 9. Local government ordinance; installation in single-family residence. Notwithstanding subdivision 7, or other law, a local governing body may adopt, by ordinance, rules for the installation of a smoke detector in single-family homes in the city that are more restrictive than the standards provided by this section. Rules adopted pursuant to this subdivision may be enforced through a truth-in-housing inspection.

Check with the building and fire officials in each city you intend to obtain permits for plumbing, electrical or mechanical work to determine if they have adopted a more restrictive ordinance.

» View a list of Minnesota building officials at www.dli.mn.gov/CCLD/PDF/bc_bo_list.pdf.

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

Receive e-mail notification when an issue is available by subscribing online.

## Contact information

**CCLD main phone number**
(651) 284-5012

**Visit the Contact Us page**

**Licensing information**
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 Code information**
Phone: (651) 284-5012
Toll-free: 1-800-657-3944
Fax: (651) 284-5749
TTY: (651) 297-4198

**Electrical information**
Phone: (651) 284-5026
Fax: (651) 284-5749
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

**Plumbing information**
Phone: (651) 284-5063
Fax: (651) 284-5748
DLI.Plumbing@state.mn.us

**Residential Building Cont.**
Phone: (651) 284-5069
Fax: (651) 284-5749
DLI.Contractor@state.mn.us

**Independent Contractor Exemption Cert. information**
Phone: (651) 284-5074
DLI.ic@state.mn.us

# Installation manuals are now available online

Minnesota State Building Code (MSBC) Chapter 1350 requires manufactured homes with a HUD construction label (built after June 14, 1976) be installed/set-up in accordance with the home manufacturer's third-party-approved installation manual that was supplied with the home at the time of the home's manufacture.

HUD manufactured home rules and regulations since 1976 have required the manufacturer to supply an engineered and third-party-approved method in a manual for the proper installation/set-up and anchoring of each manufactured home design. The manuals were to remain with the homes even when changes in ownership or relocation of the home occurred.

Installation and set-up manuals do tend to disappear from homes as years pass, so in an effort to help industry-licensed installers and homeowners ensure structures are correctly installed during relocation of the home to new site of occupancy, CCLD has made available previously-approved installation manuals on its Web site at www.dli.state.mn.gov/CCLD/ManufacturedPrintoutsInstallation.asp

Check the date of manufacture of the home (found on the data plate of the home) and match the online manual for the time frame of the date of manufacture of the home. This is important to ensure correct installation of the used home on a new site of occupancy.

Depending on the age or brand of home, ground set installations may be used in lieu of required frost-protected footing or foundation systems as opposed to newer homes which require frost-depth footings or frost-protected foundations. Prior to installation, a homeowner or licensed installer should check local zoning requirements that may require foundation or footing systems which are more restrictive than state or local requirements.

As additional manuals are digitized they will be added to the Web site. If a dealer, installer, park owner or homeowner has a manual for an older manufactured home that is not listed on the Web site and wish to have it added, please submit it to the Manufactured Structures Section at CCLD for inclusion. Visit the CCLD Contact Us Web page for staff e-mail address and phone numbers.

# No COM*check* for commercial building design

COM*check* — computer software that can help ensure energy code compliance in commercial applications — cannot be used in Minnesota for design of commercial buildings.

Federal funding to update COM*check* was cut, so it was not updated for Minnesota's Commercial Energy Code, Minnesota Rules Chapter 1323. To prove compliance with Minnesota's Commercial Energy code the building designer can use the following ASHRAE documents:

1. The prescriptive path from ASHRAE Standard 90.1-2004 which includes the following documents:
   a. building envelope compliance documentation,
   b. HVAC compliance documentation,
   c. service water heating documentation, and;
   d. lighting compliance documentation

2. One of two performance paths from ASHRAE Standard 90.1-2004, which are:
   a. energy cost budget method:
      i. including the Energy Cost Budget Compliance Report
   b. building performance method:
      i. including the building performance rating documentation

These documentation and submittal forms, including the instructions, are available at www.ashrae.org/technology/page/97 under "Interactive 90.1-2004 Compliance Forms" and can be completed and saved to a computer.

## Web updates

***Visit www.dli.mn.gov to stay current about activity at the Department of Labor and Industry***

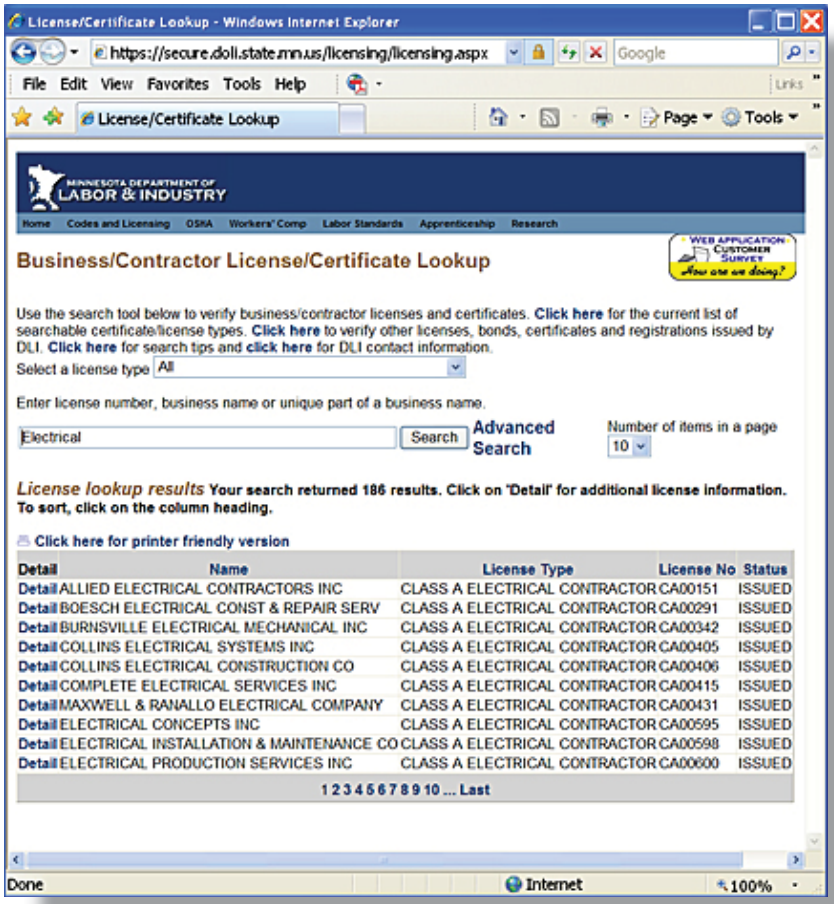
**A few of the most recent additions and updates to DLI's Web site include:**

- New enforcement actions against license holders at the DLI enforcement actions Web page.
- Visit the contractor education calendar for continuing education course listings.
- Download license forms on the CCLD forms page.

# CCLD expands online License Lookup capabilities

CCLD's online License Lookup now contains a listing of more than 25,000 licensed contractors. Business and contractor licenses, certificates and bond filings that are now in the lookup tool include:

- High Pressure Piping Business License
- Master Plumber Bond Filings
- Restricted Master Plumber Bond Filings
- Certified Pipe Layer Plumbing Bonds
- Water Conditioning Contractor Bonds
- Mechanical Contractor Bond Filings
- Electrical Contractor Licenses
- Elevator Contractor Licenses
- Technology System Contractor Licenses
- Residential Builder Licenses
- Independent Contractor Certificate
- Residential Remodeler Licenses
- Residential Roofer Licenses




***Lookup a license, certificate, registration or bond at:***
***https://secure.doli.state.mn.us/licensing/licensing.aspx***



## Building officials, help us keep your contact information current

The state municipal building official list is online at www.dli.mn.gov/CCLD/PDF/bc_bo_list.pdf

If a change is needed, please contact Peggi White at peggi.white@state.mn.us.
Notices are often sent to building officials via e-mail. Municipalities should also report building official designation changes to Peggi White at CCLD. More information and the applicable forms are online at www.dli.mn.gov/CCLD/Official.asp

Visit the Contact page to find phone numbers and e-mail addresses for DLI staff.

Permits required

# Don't forget about permits when making repairs

Are permits and inspections required for replacing garage doors, windows including sash replacement, re-roofing and re-siding?

Minnesota Rules Chapter 1300 section 1300.01110, Duties and Powers of Building Official, Subp. 3, Applications and Permits states:

> *"The building official shall receive applications, review construction documents, and issue permits for the erection, alteration, demolition, moving, and repair of buildings and structures, including all other equipment and systems regulated by the code. The building official shall inspect the premises for which the permits have been issued and enforce compliance with the code."*

Garage doors are regulated by chapter 3 in the IRC regarding wind limitations. Windows are regulated in chapters 6 and 7 of the IRC as well as the energy code chapter 1322. Siding is regulated in chapter 7 of the IRC and roofing is regulated in chapter 9 of the IRC.

All of those items are regulated by the State Building Code and require the building official to issue permits and inspect the work for compliance with the applicable code requirements.

Those items do not fall under Minnesota Rules Chapter 1300, section 1300.0120, Permits, Subp. 4: work exempt from permit.

Inspection requirements also apply to home siding work when electrical equipment and devices that are mounted on the exterior of an occupancy will be removed and reinstalled or replaced in association with the installation of a new exterior finish.

An individual performing electrical work must be either licensed or registered and the electrical work must be performed by, or under the direct supervision of, a licensed master or journeyman electrician who is a W2-type employee of the same electrical contractor.

An exception to that licensing requirement is a homeowner, who will personally and physically perform the electrical work on the single-family, detached dwelling they own and occupy, is not required to hold an electrical license.

For more about electrical licensing and inspection requirements related to repair or replacement of the exterior of an occupancy, see the fall 2009 edition of the *CCLD Review* newsletter.

Show stopper

# CCLD display booths available for your events

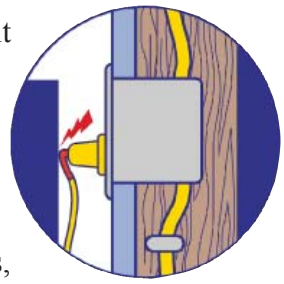
The CCLD loans three, two-part display units to building officials presenting code-related information at community events.

A variety of free literature and photos is provided. The display case size is 55″ x 26″ x 11″. To reserve a display, contact Chris Thompson at (651) 284-5856 or via e-mail at chris.thompson@state.mn.us.

Reservations are granted on a first-come, first-served basis and the displays must be returned to DLI's St. Paul offices as soon as possible after use to allow pick-up by other users. A specific pick-up time will be arranged to allow quick pick-up and drop-off in DLI's front lobby.

# Don't let arc-fault circuit interrupters trip you up

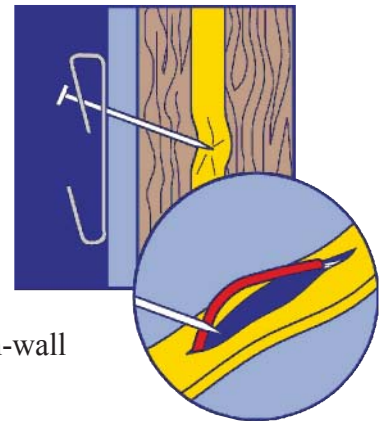
The 2008 National Electrical Code (NEC) requires that 120-volt, 15- and 20-ampere branch circuits in dwellings be protected by listed, combination-type arc-fault circuit interrupters (AFCI). This requirement only applies to those circuits supplying lighting outlets, receptacle outlets and other outlets in family rooms, dining rooms, living rooms, dens, bedrooms, sunrooms, recreation rooms, closets, hallways or similar rooms or areas. Although not required, AFCI protection for branch circuits supplying kitchens, bathrooms, unfinished basements, garages and outdoors is not prohibited.



What is arcing and why is it so important to stop it? Underwriters Laboratory defines arcing as "a luminous discharge of electricity across an insulating medium, usually accompanied by a partial volatilization (SPARKS) of the electrodes (wires)." It is an unintended arc created by current flowing through an unplanned path. Arcing can create high intensity heating with temperatures exceeding 10,000 degrees and can ignite wood or other combustible materials. That arcing is sustainable at 120 volts and can go undetected for an indefinite period of time.

Despite the inherent safety in wiring methods and products used today, arc-fault circuit interrupters (AFCIs) provide an opportunity to reduce the incidence of fires that originate in the electrical system. AFCI devices can detect and mitigate low level arcing in the electrical distribution as well as in appliance and extension cords. An AFCI device is intended to provide protection from the effects of arc faults by recognizing characteristics unique to arcing and by functioning to de-energize the circuit when an arc fault is detected.

AFCIs are sophisticated electronic devices; they constantly monitor the protected branch circuits for abnormal arcing conditions that could result from any number of dangerous events (e.g. frayed lamp cords, faulty appliances, damaged in-wall wiring, etc.).



Although AFCIs are listed by nationally recognized testing laboratories in accordance with national standards and rigorously tested as part of the manufacturing and third-party evaluation process, there are unpredictable field conditions that may affect their performance.

Manufacturers and testing laboratories are very interested in obtaining and investigating reports of unwanted tripping events associated with AFCI devices.

## Report unwanted AFCI tripping as follows:

### Consumers, contractors or electrical inspectors:

- The National Electrical Manufacturers Association (NEMA): http://afcisafety.org/report.html
- Underwriters Laboratories (UL): http://www.ul.com/global/eng/pages/offerings/perspectives/consumer/fieldreport/

### Electrical inspectors only:

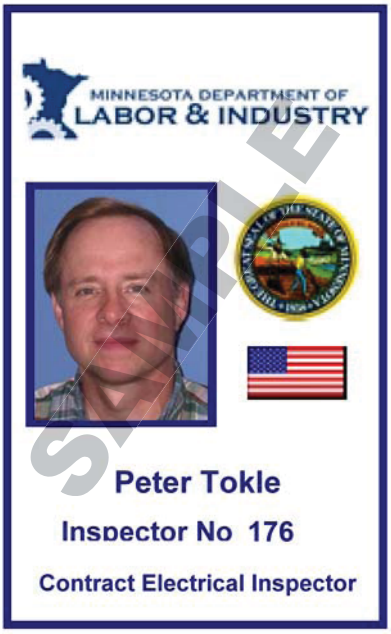
- Underwriters Laboratories (UL): http://www.ul.com/global/eng/pages/offerings/perspectives/regulator/electrical/productreport/

# Know who is inspecting your electrical work

In this era of heightened security concerns, it is not uncommon to receive inquiries from property owners and others seeking validation that the electrical inspector who is standing on their front door step is actually who he or she claims to be.

Those innocent days of allowing the water meter reader to knock on the door, announce himself and then tramp down the basement stairs to read the water meter came to an end a long time ago.

In the interest of public safety, high quality public service and a consistent method for identification, CCLD provides photo identification badges for all contract electrical inspectors and electrical area representatives.




An example of the ID carried by state contract electrical inspectors and electrical area representatives

Contract electrical inspectors are required to display their photo identification badges to installers, property owners and others when performing contractual inspection duties. The photo identification badges are required to be clearly visible to all persons from a reasonable distance.

In addition to the photo identification badges provided by CCLD, most contract electrical inspectors have business cards, and many also voluntarily provide signage for their vehicles. They may also have insignia on their clothing, outerwear, hats, etc.

Installers, property owners and others are reminded to always verify the credentials or identity of any public workers or agents who may visit a job site or property without advanced notice.

## Question & Answer — Electrical Edition

### Branch circuits and inspection fees

**Q:** Do the requirements in NEC 210.4 for "disconnecting" multiwire branch circuits directly affect the calculation of electrical inspection fees?

**A:** No. When calculating electrical inspection fees, the focus needs to be on the "type of circuit", not necessarily on the type of overcurrent device, nor the required disconnecting means for the circuit or the overcurrent devices.

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# Question & Answer

# Electrical Edition

## Branch circuits and inspection fees

Continued from Page 9

**A:** The word "circuit" is used generically in the inspection fee schedule. It essentially correlates with the definition of "Branch Circuit" in the NEC. A "Branch Circuit" consists of the circuit conductors between the final overcurrent device protecting the circuit and the outlet(s). Recall that the definition of 'outlet' is "a point on the wiring system at which current is taken to supply utilization equipment"; an outlet could include lighting outlets, receptacle outlets, smoke alarm outlets, specific utilization equipment, and so on. The overcurrent device for a branch circuit could consist of either fuses or circuit breakers.

For the purpose of calculating electrical inspection fees, one would simply count the quantity and rating of the required overcurrent devices for any given branch circuit based on the particular characteristics of the branch circuit - for the moment, disregard whether the overcurrent devices are fuses, circuit breakers, or circuit breakers with handle ties, etc.).

NEC 240.15 requires that a "fuse" or an "overcurrent unit of a circuit breaker" be connected in series with each ungrounded conductor in a circuit. Also, NEC 240.21 requires that the overcurrent protection in each ungrounded circuit conductor shall be located at the point where the conductor receives its supply.

In addition to overcurrent protection for the circuit, NEC 210.4(B) contains rules related to the required "disconnecting means" for multiwire branch circuits. Overcurrent protection and disconnecting means for circuits are different topics, yet related.

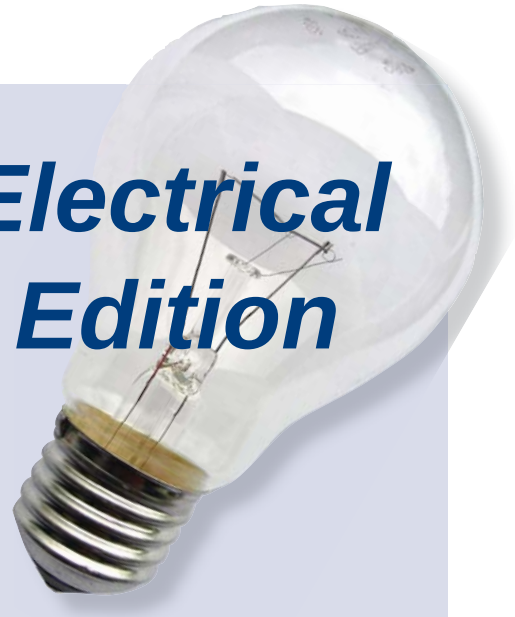
Following are some examples of circuit types and the related electrical inspection fee(s):

- Multiwire branch circuit (3 ungrounded conductors and a common neutral) serving single-phase line-to-neutral circuits (e.g. office lighting) (3 circuits each at $6)
- Multiwire branch circuit (3 ungrounded conductors and a common neutral) serving single-phase line-to-neutral circuits (e.g. office receptacle outlets) (3 circuits each at $6)
- Multiwire branch circuit (2 ungrounded conductors and a common neutral) serving a single-phase circuit (e.g. kitchen range) (1 circuit at $6)
- Branch circuit (2 ungrounded conductors) serving a single-phase line-to-line circuit (e.g. bathroom hand dryer) (1 circuit $6)
- Branch circuit (3 ungrounded conductors) serving a three-phase line-to-line circuit (e.g. exhaust fan) (1 circuit $6)

Installers are reminded that NEC 110.22 requires each disconnecting means to be legibly marked to indicate its purpose and the marking shall be of sufficient durability to withstand the environment involved. In addition to the fire and life safety benefits derived from having an accurate and complete index in the typical panelboard, a detailed index will help to ensure that electrical inspection fees are being tabulated in a fair and consistent manner.

# Question & Answer

# Electrical Edition



## During a remodel, do we need to update our electrical wiring?

**Q:** We are remodeling a kitchen, bathroom and bedrooms in an existing home; do we have to update all of the electrical wiring within the house to the current electrical code? Is there a law that protects homeowners from having to bring an existing home up to the current electrical code?

**A:** The National Electrical Code (NEC) is an installation standard that is adopted as part of the state building code. The NEC contains the necessary minimum safety provisions (rules) for new electrical installations (i.e. installing electrical wiring and equipment). With proper maintenance, the electrical installations will be essentially free from hazard. As adopted in Minnesota, the NEC does not contain rules related to electrical licensing, electrical permits, electrical inspections, and other administrative matters that are otherwise regulated by state, county, or local laws, rules, ordinances, and so on.

Generally, existing installations that do not comply with the provisions of the current code are permitted to be continued in use unless an authority having jurisdiction (AHJ) determines that the lack of conformity with the current code presents an imminent danger to occupants. Existing buildings are regulated by fire officials, county or municipal building officials, county or municipal ordinances, truth-in-housing programs, transfer-upon-sale inspection programs, and so on. There is no state law that requires existing homes to be brought entirely up to the current electrical code, nor is there a state law that protects homeowners from having to bring an entire home up to the current electrical code. (However, certain remodeling and repairs to a home may trigger other requirements, such as the installation of smoke alarms. It's best to check with the local AHJ for any such requirements).

In an area covered by state electrical inspections, every new electrical installation in any construction, remodeling, replacement, or repair is required to be inspected, and obviously the electrical work must comply with the current NEC.

In summary, every new electrical installation in any construction, remodeling, replacement, or repair is required to be inspected, and obviously the electrical work must comply with the current NEC. Notwithstanding a local ordinance or determination by an AHJ, existing electrical infrastructure that was installed and inspected in accordance with the NEC that was in effect at the time of original installation would generally be permitted to continue in use. However, as part of any proposed remodeling work, and to ensure the safety of all occupants, it would also be prudent to do an assessment of the other existing electrical infrastructure in an effort to find obvious electrical hazards that may be a result of people tampering with the original electrical wiring, or original electrical wiring that has simply fallen into disrepair. Unless the existing electrical infrastructure was significantly dated or otherwise compromised, bringing all of the electrical wiring up to current code in an existing building would generally not be necessary.