



CCLD REVIEW

CONSTRUCTION CODES AND LICENSING DIVISION

WINTER 2006

Director's corner ...



Tom Anderson,
Executive Director,
Construction Codes
and Licensing

Welcome to the *CCLD Review*, our new, construction codes and licensing publication. It replaces our three former publications – *The Standard*, *The Connector* and *The Catch Basin* – into one online, quarterly newsletter. Our goal is to keep stakeholders up-to-date about current trends, initiatives and information.

October 2006 marked the one-year anniversary of the last physical move that accomplished the Governor's Reorganization Order and established the Construction Codes and Licensing Division at Labor and Industry. Since then, our division has developed a new leadership structure based on the functions and services we provide to help us deliver more efficient services to the construction industry and the public.

For example, our new licensing unit is now responsible for licensing the areas of: residential contractors, electrical, plumbing, certified building officials, mechanical bonds, boilers and high-pressure piping. This unit now licenses approximately 90,000 individuals and businesses in 49 distinct, different categories.

In order to streamline the license process and leverage technology, CCLD has begun a Web pilot project to make it easier for the construction industry to obtain, maintain, track and renew these 90,000 licenses online.

Residential contractor licenses and building official certifications are the first areas that will be rolled out online before the 2008 renewal process begins.

We have other initiatives in the works that we expect will improve service, look for additional updates in the coming months as these initiatives and improvements begin to crystallize.

May 31, 2007: Mark your calendar



What does May 31, 2007, mean to municipal building departments, builders and design professionals? It is the date that has been selected to adopt the 2006 International Codes.

Because the rulemaking process is lengthy, this date will give CCLD adequate time to complete the code adoption process, publish the new codes and provide time for municipalities to adopt and implement the new codes. Design professionals and builders will also use this time to become familiar with any changes to the codes.

The Elevator Code, Accessibility Code, International Fire Code and International Building Code are past the public hearing stage of the rulemaking process. Just a few steps back in the rulemaking process are the following codes: International Residential Code (IRC), Chapter 1300 Administrative Code, Chapter 1306 Special Fire Protection Systems, Commercial Energy Code, Residential Energy Code, Conservation Code (rehabilitation code for existing buildings), International Mechanical Code, International Fuel Gas Code and Minnesota provisions to the Minnesota State Building Code.

The 2008 National Electrical Code is scheduled to be adopted in July 2008.

To view the progress of each rule, DLI has developed a Web page at www.doli.state.mn.us/rulemaking_activity.html that lists the contact information, published notices, availability of rule drafts, requests for public hearings, status of the rule proceeding, date the rule was filed with the Secretary of State and the effective date of the rule.

Additional information about the rulemaking process is available at www.leg.state.mn.us/leg/statutes.asp.



Electrical code question and answer

Metal halide fixtures used for temporary lighting

Question: Do the requirements in Section 410.73(F)(5) of the 2005 National Electrical Code (NEC) apply to metal halide light fixtures used for temporary lighting on a job site?

Answer: Yes; 2005 NEC Section 410.73(F)(5) states that fixtures that use a metal halide lamp other than a thick-glass parabolic reflector lamp (PAR) shall be provided with a containment barrier that encloses the lamp, or the fixture shall be provided with a physical means that only allows the use of a lamp that is Type O. NEC Section 590.4(F) further requires that for temporary installations all lamps for general illumination shall be protected from accidental contact or breakage by a suitable fixture or lampholder with a guard. (Recall in Section 90.3 that the

requirements in Chapters 5-7 supplement or modify the general rules in Chapters 1-4).

Background: Section 410.73 (F)(5) was added in the 2005 NEC due to several major fires. Metal halide lamps with damaged arc tubes and falling hot particles have been identified as the likely source of ignition. Lamp types that are suitable for use in open light fixtures are classified by lamp manufacturers as Type O. Type O lamps include a shroud around the arc tube to contain any hot particles. In summary, the NEC now requires fixtures that use a metal halide lamp to have either a containment barrier that encloses the lamp and prevents the release of hot particles or a protected lamp socket that only allows the use of a Type O lamp.

Public building project review, permits and inspection vary by project

CCLD maintains agreements with most building officials for the administration of the building code on Public Buildings (state-owned buildings such as for DOT, DNR, capitol complex and public school district building projects valued over \$100,000) and State Licensed facilities (nursing homes, hospitals, free standing outpatient surgical centers and correctional facilities). These agreements state one of the following:

- **MSBC:** The state performs both plan review and permits/inspections.
- **BOTH:** The local municipality performs both plan review and permits/inspections.
- **INSP:** The state performs plan review and the municipality performs permits/inspections .
- **NONE:** There is no formal agreement and the state does both.

Please remember these agreements are between the state and a specific building official and municipality. Therefore, if you are a newly appointed building official and wish to have an agreement with us for administration of the code on public buildings and state licensed facilities, you must do two things: First

contact Scott McLellan at (651) 284-5869 to obtain an application. Second, contact Doug Nord at (651) 284-5838 to schedule a review of your municipality's code administration to determine if you "have enough adequately trained and qualified [staff] to provide those services..." in accordance with M.S. 16B.61, subd. 1a.

Plans are underway to change the way the state enters into agreements with municipalities for these building and facility types. CCLD will update you when those plans are further along.



Correction of accessibility code information

Attn: Seminar participants from the 2006 BCS Spring seminar

A misinterpretation of the new Accessibility Code was presented at the Spring 2006 Building Code Seminar. The purpose of this article is to communicate the correct application of the proposed code regarding elements, specifically sinks, provided in employee work areas and used only for work.

Sinks and other elements and devices used only by employees and used only for work will not be required to be accessible in the proposed accessibility code. The 2006 International Building Code Section 1103.2.3 states, "Spaces and elements within employee work areas shall only be required to comply with Sections 907.9.1.2, 1007 and 1104.3.1 and shall be designed and constructed so that individuals with disabilities can approach, enter and exit the work area."

This section requires that employee work areas be provided with accessible alarms (907.9.1.2), accessible egress (1007), an accessible route (1104.3.1) and nothing more. The definition of employee work area in IBC Section 1102.1 states, "All or any portion of a space used only by employees and only for work." Since the definition includes "any portion of a space" used only by employees for work, Section 1103.2.3 applies to areas used commonly by employees and the public. For example, a sink and all other elements and devices provided in a patient examination room in a medical clinic are not required to be accessible as long as they are only provided for the use of employees. The entire space does not have to be an employee-only work area in order for Section 1103.2.3 to apply.

For more information, contact Curt Wiehle, Building Code Representative, Accessibility, at (651) 284-5877 or via e-mail at curtis.wiehle@state.mn.us.

Municipal permit online surcharge reporting

DLI launched its new online municipal surcharge report program in July 2006. The program allows municipal users to file their report and make payment online and view previously filed reports. Municipalities with a population greater than 20,000 report monthly, all others report quarterly. Since July 2006, the number of online users has increased, 31 percent to 70 percent for monthly reports and 27 percent to 57 percent for quarterly reports.

The agency is pleased with the response to this program and encourage those that have not used it to give it a try. The Web page includes an "online surcharge reporting manual" to help new users get started. It is online at <https://secure.doli.state.mn.us/mnbps>.

CCLD has also added a new Web feature that allows users to calculate individual permit surcharges. It can be used to calculate any fixed fee or valuation based permit and will be helpful for those permits with a valuation greater than \$1,000,000. Try the online calculator at www.doli.state.mn.us/bc_surcharge_calc.html.

For information about the online report, call Robin Roscoe at (651) 284-5804 or via e-mail at dli.bpsadm@state.mn.us.



A new newsletter

CCLD Review, a quarterly publication of the Minnesota Department of Labor and Industry, provides construction codes and licensing-related department news.

To receive e-mail notification about future issues of the *CCLD Review*, [subscribe online](#).

Send any questions, story ideas or comments to dli.ccldreview@state.mn.us.

Contact information

CCLD main phone number:
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Building Code information

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bcsd.response@state.mn.us

Electrical information

Phone: (651) 284-5064
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Boiler, High-Pressure Piping, Boats-for-Hire information

Phone: (651) 284-5080
Fax: (651) 284-5737
DLI.Code@state.mn.us

Plumbing information

Phone: (651) 284-5067
Fax: (651) 284-5748
DLI.Plumbing@state.mn.us

Residential Building Contractor information

Phone: (651) 284-5065
Fax: (651) 284-5749
DLI.Contractor@state.mn.us

Three coming construction industry training opportunities

1 College of Continuing Education Annual Institute for Building Officials

Jan. 3 – 12, 2007

Continuing Education and Conference Center, St. Paul, Minn.

Topics this year include new commercial and residential energy codes, new accessibility code, contractor licensing laws, residential moisture intrusion. A complete list of seminars and registration information is online at www.cce.umn.edu/buildingofficials.

For questions, contact Electra Sylva at conferences5@cce.umn.edu or call (612) 624-3708.

The trade show is 4:30 – 6:30 p.m., Jan. 10, 2007.

The Minnesota certified building official examination will be at 7 a.m. Friday, Jan. 12, 2007.

2 2007 ICC Upper Great Plains Regional III Education Institute

Feb. 5 – 9, 2007

The Northland Inn, Brooklyn Park, Minn.

Topics this year include: 2006 IBC seminars, design and inspection of cold-formed steel structures, alternative materials and systems, building enclosures and mechanical systems. A complete list of seminars and registration information is online at www.ambo.us or www.iccsafe.org/training.

For more information, call 1-888-ICC-SAFE (422-7233), ext. 33817.

3 Online building inspection courses

The Building Inspection Technology (BIT) program at North Hennepin and Inver Hills Community Colleges will be offering new online courses beginning in January for the 2007 Spring program.

BIT 1300: Nonstructural Plan Review (based on the IRC)

BIT 1700: Plumbing Inspections

BIT 2100: Concrete and Concrete Inspections

Students may take coursework in a number of different formats from the colleges including traditional face-to-face instruction during the evenings, on-line instruction, or a Web-enhanced format that combines both face to face and online instruction.

Learn more about available courses by visiting www.nhcc.edu/programs and www.inverhills.edu. Questions regarding the BIT program can be forwarded to Ron Sonnek at (763) 488-0208.

View more Building Code training opportunities online at
www.doli.state.mn.us/bc_calendar.html.



Plymouth contractor charged with \$800,000 theft of elderly couple after fraud investigation

A Plymouth man was charged Oct. 24, 2006, with five felony accounts of theft for allegedly swindling an elderly couple out of nearly \$800,000 as part of a contractor fraud scheme.

Richard Dean Gurewitz, 40, is the president and part-owner of Home Update Company. Early in 2006, the Minnesota Department of Labor and Industry completed its investigation of a contractor licensing complaint against the company regarding a remodeling project in Minneapolis. DLI revoked the company's license in February 2006 and issued a fine of \$120,000. The state investigation, in turn, prompted a criminal investigation conducted by the Hennepin County Sheriff's Office with the Hennepin County Attorney's Office.

The case involves a small, one-story, six-room house with about 600 square feet of living space. The home which has a market value of \$102,000, is owned by an 81-year-old woman and her 79-year-old husband. The husband suffers from Alzheimer's and requires significant supervision.

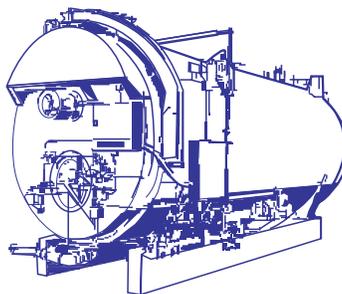
From July 2003 through July 2005, Gurewitz took more than \$789,000 from the couple for remodeling work. The value of the work is actually between \$40,000 and \$150,000 on which Home Update Company spent less than \$80,000. The couple's checks to Home Update Company were deposited in corporate bank accounts. Gurewitz was an authorized signer on these accounts and signed most of the checks.

According to City of Minneapolis records, seven permits were obtained for work related to the remodeling project with a total value listed of \$32,619.

More details are included in the Hennepin County Attorney's Office press release is online at www.hennepinattorney.org/news_2.asp?NRcno=325.

Boiler licensing enforcement

- A chief boiler engineer at a facility in the St. Paul metro area had his license suspended for 90 days because he falsified an affidavit for one of his employees. The employee involved had his chief engineer license revoked and his first class license was suspended for one year.
- A chief engineer from Crookston, Minn., had his license revoked for operating a boiler while under the influence of alcohol and leaving the boiler unattended for extended periods of time.
- The National Board of Boiler and Pressure Vessel Inspectors third-quarter *Report of Violation Findings for 2006* of boiler and pressure vessel inspection violations is online at www.nationalboard.org/nationalboard/news/headlinenews/q3_violations.aspx.



Master electrician license renewals in February require CEUs

Master electrician licenses will expire Feb. 28, 2007.

Licenses cannot be renewed until continuing education requirements have been met.

Building official designation

Congratulations to the state's recently designated municipal Building Officials:

- **Joseph R. Heimkes**
City of South St. Paul
- **Thomas G. Blazina**
City of Mankato

Building officials: help us keep our database current

The Building Official list is online at www.doli.state.mn.us/buildingcodes.html.

If a change is needed, please contact Peggi White at peggi.white@state.mn.us.

Official notices are sent to Building Officials via e-mail. Please send e-mail addresses or phone number changes to bcsd.response@state.mn.us.

Municipalities should report Building Official designation changes to Peggi White at CCLD. The form is online at www.doli.state.mn.us/bc_local_government.

Elevator code, chapter 1307 with ASME updates, soon to be to adopted

The CCLD elevator safety section is expecting a new elevator code to be adopted during the first quarter of 2007. They have changed their main ASME A17.1 Safety Code Elevator and Escalators referenced documents from:

A17.1-1996 to A17.1-2004
A17.3-1996 to A17.3-2002.

ASME Safety Standard for Platform Lifts and Stairway Chairlifts A18.1-2005 and chapter 30 of the IBC 2006 were also added.

Elevator Code updates Minnesota Rule Chapter 1307 is close to adoption. The following is a list significant rule changes, with further details below.

1. Replacement of single bottom hydraulic cylinders

Single bottom cylinders have been in the ground for more than 30 years. The risk of catastrophic failure due to the separation of the single bottom of the cylinders increases with age. The replacement with the double bottom cylinder is expensive and a five year compliance time line has been added to aid with budget issues.

2. Escalator/moving walk loaded gap and

3. Escalator step/skirt performance index

Escalator loaded gap and step/skirt requirements are to minimize skirt step entrapments and have three-year compliance time line.

4. Firefighters service

The retroactive fire service, elevators with a travel of 25 feet or more must have phase one recall off of smoke detectors and a main level key switch. They must have a phase two fire fighters service, a key switch for fire department operation. This change also has a five year compliance time line. We have also made a change to the phase two requirement for buildings with phase one installed. If the key and smoke detector recall were installed on installation



and the elevator has a travel of less than 35 feet, the elevators will not be required to have phase two installed.

5. Restricted car door opening

Retroactive restricted car door opening device will prohibit the opening of car door when the car is not at landing. This will inhibit riders from putting themselves in a dangerous situation when trapped in between floors and has a five year compliance time line.

6. Maintenance record on site.

Maintenance code will require the owner (owner's agent) to have a written maintenance control program for all equipment covered by this code; Written record of maintenance, repair, testing, callbacks and work preformed, written records of fireman's recall testing, written record of door closing force and speed and written record of oil usage for buried cylinders.

7. Hoistway venting requirement.

When a hoistway vent is required matches the IBC Chapter 30. How the vent is to work and be installed is the same. The vent will not be required in fully sprinkled buildings unless there is overnight stay.

8. Stretcher size elevator

Stretcher size elevators have increased from Minn. Chapter 1307 80 inches to 2006 IBC 84 inches this means where applicable a 2500 pound capacity jumps to 4000 to 4500 pound capacity.

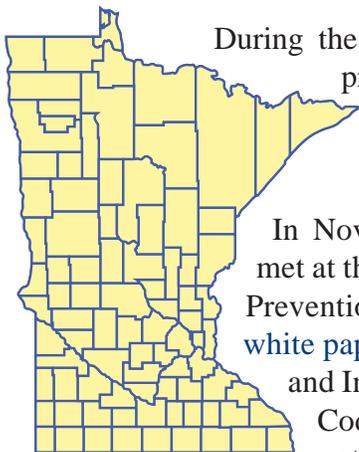
9. ANSI 117.1 Car button numbers

The soon to be adopted Assessable and Usable Buildings and Facilities ANSI a117.1 code will require new elevators to be numbered as:

- main entry level shall be labeled 0
- all ascending floors 1,2,3,4 etc.
- all descending floors -1,-2,-3,-4 etc.

If you have any questions about this information, please send an e-mail message to John Roche, Elevator Safety Section, at john.p.roche@state.mn.us.

Statewide Building Code a future possibility?



During the past several months, a number of insurance providers and other interested parties have contacted DLI about ways to get the Building Code into effect statewide.

In November 2006, a number of interested parties met at the invitation of the Governor's Council on Fire Prevention and Control. This council had presented a [white paper](#) on this issue to the Commissioner of Labor and Industry. Their recommendation is the Building Code be adopted as the standard for construction statewide and that enforcement not be required

unless the municipality chooses to do so. It would be the standard cited in contracts, legal disputes and for rebuilding with FEMA funding should that be necessary. The group that met agreed with this approach. The department agreed to help draft language and the Builders Association agreed to carry a bill in the upcoming legislative session. Additional discussions were planned on the extent of the current exception for agricultural building in the code.

Currently, a number of construction codes do apply statewide including the fire code. This model, as proposed, would be very similar to the fire code which is in effect statewide when it is adopted by rule, but is only enforced in some locations.

- [Governor's Council on Fire Prevention and Control white paper.](#)
- [State map of where the Building code is adopted and chart of codes and enforcement.](#)

Place your display unit reservations for 2007

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 Jane Schmidley at (651) 284-5856 or via e-mail at jane.schmidley@state.mn.us.



A specific pickup time will be arranged to allow quick pickup in DLI's front lobby. For directions to DLI and parking information, visit www.doli.state.mn.us/direct.html.

Sign up to receive rulemaking updates

Each state agency is required to maintain a list of people who have registered with the agency to receive notices of agency rule proceedings.

To receive these notices sign up online at www.doli.state.mn.us or print the Word document from the Web site, complete it and mail it as directed.

Have an electrical complaint?

You can express electrical complaints in a proactive manner by reporting violations in the form of a formal complaint. View all disciplinary actions, revocations, suspensions and the complaint listed on the Web site at www.electricity.state.mn.us/Complain/index.html.

CCLD staff changes

Don Sivigny has a new position as Senior Code Development Representative. He will continue to serve as division contact for the Residential Energy Code.

Barry Greive has a new position as Senior Code Administration Services representative.

Toni Harvey is the new electrical investigator in Enforcement Services. She transferred from DLI's Claims Services and Investigations in its Workers' Compensation Division.

Plumbing: Questions about use of plastic water service piping

CCLD has received many phone calls about the use of plastic water service materials. Minnesota Plumbing Code allows the use of certain plastic materials for this purpose are listed in *Minnesota Rules* 4715.0420, subp. 3, standards for plumbing materials:

WATER SERVICE - Minimum working pressure rating shall be at least 150 psi for municipal water service and 100 psi for other service.

| | ASTM |
|----------------------------------------------|----------------|
| 6D Polyethylene (PE) | D2239 D2737 |
| 6E Acrylonitrile- Butadiene-Styrene (ABS) | D2282 |
| 6F Polyvinyl Chloride (PVC) | D2241 D1785 |
| 6G Polybutylene | D2662 D2666 |

Installation methods for polyethylene

Joining IPS pipe

There are two generally accepted methods of mechanically connecting sections of iron pipe size (IPS) (ASTM D2239) and copper tube size (CTS) (ASTM D2737) polyethylene water pipe and tubing together or joining it to other piping materials.

For IPS, the most common method uses insert fittings made from brass or PVC that seal using gear clamps. IPS pipe and CTS tubing can be joined using external compression fittings that seal via internal gaskets and external clamping. Insert fittings cannot be used on polyethylene water tubing (CTS) made to ASTM D2737.

ASTM D2609 outlines the dimensional requirements for plastic insert fittings.

Insert fittings

Use insert fittings with sufficient length to allow the application of two clamps on each side.

- Use clamps produced from all stainless steel; including the screw.

- Place clamp screws 180° opposite each other.
- Be sure clamps are over the barb of the fitting and not the flat.

Do not use any lubricants, sealing compounds or pipe dope. Use of these materials voids all warranties and may cause damage to the pipe.

Heavy walled, large diameter pipe, 160 PSI and 200 PSI and 1¼" and larger, require the use of brass or galvanized insert fittings and industrial type clamping devices. For 1½" and 2" ID 200 PSI pipe, external compression fittings, specifically designed for use with IPS pipe are strongly recommended. External compression fittings provide an effective, reliable coupling for heavy wall, large diameter pipe.

In cold weather, it may be necessary to warm the pipe in order to insert the fitting. **Do not use a torch to heat the pipe.** Gently warm the pipe using hot water or by storing the pipe in a warm place prior to use.

Installation of ABS and PVC piping

Both ABS and PVC is standard solvent weld installation.

Installation of polybutylene

Polybutylene is joined by the use of crimp rings.

Plastic pipe 6D, 6E, 6F and 6G may be used for water service pipe only up to the water meter or pressure tank and provided there is no more than two feet of such piping exposed within the building. These materials shall be installed in accordance with ASTM D 2774-72.

Particular care shall be taken to avoid sharp edges in contact with the pipe and to provide for expansion and contraction.

The installation tips provided above are from Endot Industries Web site at www.endot.com/support/installations.asp?Ins=waterpipe.

If you have any questions, please contact Plumbing Plan Review and Inspections at (651) 284-5067.