



# **Dora**

Department of Regulatory Agencies

**Office of Policy, Research and Regulatory Reform**

## **2008 Review: Proposal for Mandatory Continuing Education for Electricians**

**March 13, 2008**

# STATE OF COLORADO

**DEPARTMENT OF REGULATORY AGENCIES**  
Office of the Executive Director

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Bill Ritter Jr.  
Governor

March 13, 2008

Members of the Colorado General Assembly  
c/o the Office of Legislative Legal Services  
State Capitol Building  
Denver, Colorado 80203

Dear Members of the General Assembly:

The mission of the Department of Regulatory Agencies (DORA) is consumer protection. As a part of the Executive Director's Office within DORA, the Office of Policy, Research and Regulatory Reform seeks to fulfill its statutorily mandated responsibility to conduct reviews of proposals to require mandatory continuing education with a focus on protecting the health, safety and welfare of all Coloradans.

DORA has completed its evaluation of the proposal to impose continuing education requirements on electricians and is pleased to submit this written report. The report is submitted pursuant to section 24-34-901, Colorado Revised Statutes, which provides that DORA shall conduct an analysis and evaluation of the proposal to determine whether the mandatory continuing education would likely protect the public served by the practitioners.

Sincerely,

D. Rico Munn  
Executive Director

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## Background

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Prior to introduction of legislation designed to impose a mandatory continuing education (MCE) requirement on a regulated occupation or profession, the proponents of the legislation must submit information concerning the need for such a requirement to the office of the Executive Director of the Department of Regulatory Agencies. The Executive Director is required to review, analyze, and evaluate the proposal and report in writing to the General Assembly whether mandatory continuing education would likely protect the public. Section 24-34-901, Colorado Revised Statutes, states:

*Proposed continuing education requirements for regulated occupations and professions - review by office of executive director.*

(1) Before any bill is introduced in the general assembly that contains, or any bill is amended to contain, a mandatory continuing education requirement for any occupation or profession, the practice of which requires a state of Colorado license, certificate, or registration, the group or association proposing such mandatory continuing education requirement shall first submit information concerning the need for such a requirement to the office of the executive director of the department of regulatory agencies. The executive director shall impartially review such evidence, analyze and evaluate the proposal, and report in writing to the general assembly whether mandatory continuing education would likely protect the public served by the practitioners. Proposals may include, but need not be limited to: Information that shows that the knowledge base for the profession or occupation is changing; that mandatory continuing education of this profession or occupation is required in other states; if applicable, that any independent studies have shown that mandatory continuing education is effective in assuring the competency of practitioners. The proposal may also include any assessment tool that shows the effectiveness of mandatory continuing education and recommendations about sanctions that should be included for noncompliance with the requirement of mandatory continuing education. The provisions of this section shall not be applicable to:

(a) Any profession or occupation that, as of July 1, 1991, has mandatory continuing education requirements in place;

(b) Any bill that is introduced as a result of a legislative interim committee and that as introduced in the general assembly includes a mandatory continuing education requirement.

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Before beginning the review of MCE for electricians, the Executive Director evaluated the application to determine if the review was necessary under the requirements of the statute. The evaluation revealed that a mandatory continuing education program for electricians did not meet any of the exemptions from the statute and, therefore, was subject to review by the Executive Director.

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## Proposal for Continuing Education

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The Colorado State Conference of Electrical Workers (CEW) submitted information on January 24, 2008, proposing mandatory continuing education for master electricians, journeyman electricians, and residential electricians (referred to as residential wiremen in statute).

The CEW proposes that the referenced electricians take 24 hours of continuing education every two years.

As part of its MCE proposal, CEW submitted examples of mandatory continuing education required in other states. The proposal identifies 19 states “west of the Mississippi: and/or reciprocal with Colorado.” Of these 19 states<sup>1</sup>, two do not license electricians, and one does not require continuing education. The remaining 16 states have continuing education requirements ranging from 4 hours to 32 hours. Completion periods range from yearly to every three years.

The CEW submission identifies 13 of the aforementioned group that are “reciprocal” with Colorado. Reciprocal licensing refers to an agreement between state licensing authorities whereby each state recognizes the license of the other state without requiring practitioners to meet additional requirements. The purpose of reciprocity is to ease practitioner movement between states for employment or other business purposes.

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<sup>1</sup> Alaska, Arkansas, Arizona, California, Kansas, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

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## Regulation of Electricians

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In Colorado, electricians are regulated by the State Electrical Board (Board). The Board is made up of nine members consisting of two electrical contractors who have master's licenses; two master or journeyman electricians who are not electrical contractors; two representatives of private, municipal, or cooperative electrical utilities rendering electric service to the public; one building official from a political subdivision of the state that performs electrical inspections; one general contractor from the building industry; and one public member. The board is located in the Colorado Department of Regulatory Agencies, Division of Registrations.

A master electrician is an electrician that is authorized to plan, layout, and supervise the installation of wiring apparatus and equipment for electric light, heat, power and other purposes in accordance with rules and regulations such as the National Electrical Code. A master electrician must be 1) a graduate electrical engineer and have one year of practical electrical experience in the construction industry, or 2) a graduate of an electrical trade school or community college with at least four years of practical experience in electrical work, or 3) have at least one year of practical experience in planning, laying out, supervising, and installing wiring, apparatus, or equipment for electrical light, heat, and power beyond the practical experience requirements for the journeyman's license.

The journeyman electrician is authorized to wire for, install, and repair electrical apparatus and equipment for light, heat, power, and other purposes in accordance with standard rules and regulations governing said work. A journeyman electrician must have completed at least a four-year apprenticeship in the electrical trade or have four years of practical experience in wiring, installing, and repairing electrical apparatus and equipment for light, heat and power. In addition, two of the four years experience must be in commercial, industrial, or substantially similar work.

A residential wireman is authorized to wire for, and install, electrical apparatus and equipment for wiring one, two, three, and four family dwellings. A residential wireman must have at least two years of accredited training or two years of practical experience in wiring one, two, three, and four family dwellings.

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## Analysis

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The crux of the argument to impose MCE on electricians appears to depend upon the changing knowledge base of the occupation. Specifically, the National Electrical Code changes every three years, the National Fire Protection Association's Life Safety Code changes approximately every two years (although it may change every year). In addition, the MCE proposal cites frequent changes to various requirements for installation of fire alarms as examples of the changing knowledge base. The proposal includes a copy of the illustrated cover changes in the National Electrical Code book for the 2008 – as well as the National Fire Protection Association's 101 2006 edition – as reference documents.

The material submitted demonstrates adequately that the electrician's knowledge base does change significantly periodically. In addition, the material is of a highly technical nature and licensed electricians are required to perform work that is in compliance with the requirements presented in the codes. This presentation argues strongly that licensed electricians may not continue to be competent if they do not take steps to increase their knowledge base as the codes change over time.

However, there is another factor to consider in determining whether to impose continuing education requirements on electricians as a means of requiring electricians to keep abreast of the changing knowledge base.

Specifically, Colorado law authorizes the Board to examine licensees in order to renew a license or registration. Such examinations are required to be brief, multiple choice, included in the renewal notice process and open book.

The board has promulgated rules concerning the renewal examination. Rule 9.0 specifies that the multiple choice examination will be a pass/fail and no more than 25 questions. The test is conducted on-line and the examinations are based on code changes. In other words, the current exam covers the same type of material that would be the subject of the proposed MCE.

One weakness of the examination strategy is the lack of a mechanism to ensure that the licensee is actually the test taker. Although this criticism has merit, the electrician has a significant personal interest in keeping abreast of code changes and the state examination is a useful tool in that pursuit.

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The argument that the state should impose continuing education requirements on electricians as a condition of license renewal is further weakened by the electrical inspection requirement of Colorado law. Subject to certain exemptions, electrical work in Colorado must be permitted and inspected by a state electrical inspector or an inspector of a local jurisdiction. Inspections are conducted in accordance with the requirements of the National Electrical Code. If the electrical work is unsatisfactory a notice of disapproval is issued and the electrical work must be inspected again to determine that the defective work is corrected. This permitting and inspection process protects consumers from unsafe electrical work and, in conjunction with state licensing, creates a highly regulated market offering significant public protection.

## Conclusion

The Executive Director of the Department of Regulatory Agencies is statutorily charged to determine whether MCE would likely protect the public served by the practitioners. Such a conclusion cannot be drawn from the submission under review.

As noted above, the proposal does not appear to offer protection that is in any way more comprehensive than current law or board policy. It is possible, however, to envision an MCE requirement that could work in conjunction with the current licensing and inspection requirements which would enhance public protection.

There are a number of factors that may influence a practitioner's choice of continuing education offerings including convenience of the continuing education class, the expense of the class, and the amount of time in the licensee's renewal cycle for completion of the continuing education requirement. Absent a needs assessment of the electrician, the state cannot responsibly verify that the practitioner is competent to continue practice based solely on the completion of a continuing education course. Such verification by the state is the sole legitimate purpose of MCE as a condition of licensing renewal.

Second, a stronger proposal would contain a mechanism to measure retention of the information presented at the continuing education course. This is an important element of continuing competency because it requires the licensee to demonstrate that he or she has understood the material presented and can apply the material in the work environment where the public health, safety, or welfare may, in theory, be at risk from the licensee's performance.

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Absent these additional elements, the MCE proposal does not appear to be appropriate for this occupation because of the Board examination. As noted previously, this examination is given at renewal and covers changes to the occupational knowledge base.

Finally, the proposal raises the issue of reciprocity. This reasoning holds that states with MCE requirements may decide to revoke the reciprocity agreement with Colorado because Colorado does not require MCE. The proposal asserts that some states have already done so. The National Electrical Code website lists 32 states that require MCE. Implementation requirements vary. As an example, some states require MCE only when the National Electrical Code changes. In addition, electricians are regulated at the local level in some states and some local regulatory authorities may have MCE requirements.

As mentioned previously, the ability of licensed occupations to move among states is important to licensees and, to a smaller degree, to individual states that may experience supply shortages. Requirements for a license can be burdensome and can cause a licensee, particularly one who has practiced successfully, from re-locating to another state.

Colorado regulatory programs that have undergone sunset review typically have provisions in statute for license endorsement. Endorsement is a superior regulatory response than reciprocity which is becoming a somewhat quaint notion. Endorsement provisions permit a regulatory authority to grant a license to an individual licensed in another state if the individual's skills and qualifications are substantially similar to the requirements for licensing in the endorsing state. In this way all of the applicant's qualifications are considered rather than relying on an agreement between two state bureaucracies.

Thus, to require MCE of electricians in Colorado based on possible actions by other states with reciprocity provisions appears to be a step in the wrong direction. Ultimately, Colorado must set regulatory policy that protects Colorado consumers. Practitioner mobility is important but must remain secondary to the greater goal of protection of the health, safety, and welfare of the citizens of Colorado.

Therefore, it is the conclusion of this review that the current proposal does not establish that a MCE requirement of electricians is likely to protect the public. Given that conclusion based on the current proposal, however, this review also finds that the goal of establishing the continuing competence of electricians might better be realized by a two-fold approach combining improvements to the current examination process and implementation of a MCE requirement that meets the standards addressed previously in this review.