

2015 SENATE INDUSTRY, BUSINESS AND LABOR

SB 2350

2015 SENATE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee
Roosevelt Park Room, State Capitol

SB 2350
2/2/2015
Job Number 22966

☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

Relating to functions that do not require licensure as an electrician

Minutes:

Attachments

Chairman Klein: Reconvened the committee.

Senator Armstrong: Introduced the bill. It is a low wattage exemption for electrical work done for either business or private. He said he would like to see less regulation on a lot of things but reasonable regulations on work that can be easily be done in the safety of your own home on low wattage equipment should be allowed. (:30-1:45)

Chairman Klein: Asked what the chances were on getting an electrician in Dickinson within the next week if you called them today.

Senator Armstrong: Not very good at all. He lives on a farm and it would take 6 to 8 weeks to get an electrician and if it is a small job it slows it down even further.

Senator Miller: Asked if he was talking about small components, refrigerators things like that.

Senator Armstrong: Satellites, data systems there are a lot of different things on location now. They are trying to get wired in so they can connect with the real world in remote locations. Yes you're talking real small things.

Senator Burckhard: Asked if he could still get electrocuted if he doesn't do it right.

Senator Armstrong: Said he has done some of the stuff and he is still here. All fifty states are all over the board on this, there does not seem to be a national standard to what is a proper exemption. (3:20-4:02)

Chairman Klein: Asked if we would be similar to any other states or if there are any states as restrictive as we are.

Senator Armstrong: There are a lot of states that have broken the barrier and permitted this. When I look I think there are three states like North Dakota.

Chairman Klein: There could be 47 states that permit some sort of opportunity to do this?

Senator Armstrong: Yes and like I said they are all over the map on what the exemptions are, there really is no uniformity to it.

Senator Campbell: Stated that there is a lot of this going on now and by making a law is it going to change. He asked if it would be a combination of voltage and amps.

Senator Armstrong: Said he would leave it to the committee to get the language right and does believe a lot of this goes on already but there is no way of tracking it. You can do it at your house by yourself the issue is when you ask someone for help.

J. Roger Kelley, Continental Resources, Inc.: Written Testimony Attached (1) and a study of the different regulations (1b). (6:30-12:44)

Senator Miller: I am wondering where does the fifty volt threshold come into play, is that some sort of standard making delineation between low and high voltage or is that just a number that was picked?

J. Roger Kelley: That was a number that was picked by my operations people and then they gave me 24 volts as the voltage on this system.

Senator Sinner: Asked if he had any concerns about the warranty on the equipment they are installing.

J. Roger Kelley: There are warranties just like anything else if you don't follow proper procedure you can void the warranty on this equipment.

Senator Burckhard: If the electrical industry folks weren't as busy then you would be okay with them being concerned about it?

J. Roger Kelley: There is still the cost side of it.

Chairman Klein: What I heard you say is that there is a particular piece of equipment that your folks install that you don't want the electrician to help with because your technicians are trained in the SCADA system.

J. Roger Kelley: Yes these are very critical and are high level shutdowns on the tanks. These are emergency shutdowns on wells if there is an accident or a dangerous situation comes up. They are licensed and they have one man in the game with that license on location. It doesn't necessarily have to be a master electrician but they are licensed by the state to handle that level of electricity. (15:30-17:12)

Alexis Baxley, North Dakota Petroleum Council: In support of the bill.

Scott Porsborg, Special Assistant Attorney General for the North Dakota Electrical Board: In opposition to the bill. Written Testimony Attached (2). (18:48-23:40)

Senator Miller: Would it be possible to create a licensure to accommodate the oil industry?

Scott Porsborg: This bill wipes out all regulation of anything below fifty volts the way it is written. I think it needs a study of some kind to determine what regulation should be put in place for low voltage systems if the current system is working and if it is not working then what type of licensing do we need. There has to be some regulation.

Senator Miller: Does the board have the authority to grant a lesser license or do we have to give you special orders?

Scott Porsborg: That's correct.

Senator Campbell: Asked if he would be open to an amendment or compromise if we gave exceptions only to private businesses and not to people who are installing fire alarms for the public entity or the oil industry.

Scott Porsborg: I think a bill like that would be difficult to draft. If you are specifically talking about oil well sites and you want to impose no restrictions on low voltage or no safety requirements for them, I suppose that could be done.

Josh Wilson, North Dakota State Electrical Board Inspector District 1: In opposition to the bill. Written Testimony Attached (3). (27:45-31:45)

Senator Miller: Said most of our components are somewhere between three and twenty-four volts?

Josh Wilson: The majority is twenty-four; fire alarms are twenty-four.

Senator Miller: If we were to adopt something that gave the board some ability to grant some exceptions for low voltage systems would you call fifty volts low voltage?

Josh Wilson: Said the problem is we are looking at this as low meaning safe and that is not the case. There a lot of dangers associated with any type of voltage in certain situations and he doesn't believe fifty volts is safe for an unlicensed electrician.

Chairman Klein: You would suggest that ten volts is unsafe in certain instances?

Josh Wilson: Yes in certain instances that is correct.

Al Schrader, District 9 electrical inspector for the ND State Electrical Board: In opposition to the bill. Written Testimony Attached (4). (34:20-36:38)

Senator Miller: Why do we exempt telephone companies?

Al Schrader: They feel that is not in our standards.

Senator Miller: They still use voltage?

Al Schrader: Yes it's like cable TV companies, we don't enforce that either.

Senator Miller: Have you ever had an instance in your knowledge to a fire related to cable TV or telephone?

Al Schrader: No not that I know of.

Senator Murphy: It seems to me a lot of companies like to say safety comes first. Would this law countermand that dictum in your opinion?

Al Schrader: If they pass this law you are looking at the brains of that oil site being wired by a non-licensed person.

Chairman Klein: We heard from this other gentleman that the SCATA system is installed by virtually individuals who are only trained in that system and I know they don't have any oil spills. There was a statement made that a licensed electrician is neither trained nor qualified to properly install some of these because these individuals are trained.

Al Schrader: We let the oil company program all of that because that is what they are trained in same way as the fire alarm systems such as simplex. The electrician installs everything to the simplex control center and then the simplex guy takes over.

Richard Wolfe, Electrical Inspector for the State: In opposition to the bill. Written Testimony Attached (5). (41:30-45:12)

Chairman Klein: Do you want to tell us why we can't create some flexibility here similar to what some of the other states do?

Richard Wolfe: North Dakota has been a role model and our state does send us to multiples conventions and we do have reciprocity with several states to keep the licensing in tack so when we do need more work in the oil field we can get people from other states that meet the same licensing requirements. (45:40-46:10)

Bruce Murry, North Dakota Chapter of the Electrical Contractors Association: In opposition to the bill. He is speaking on behalf of **Bill Kalanek**, Written Testimony Attached (6). (48:10-49:00)

Mitch Feininger, Member of the National Fire Protection Agency's Code Making Panel 14: In opposition to the bill. Written Testimony Attached (7). (48:55-52:10)

Don Offerdahl: He is the past Executive Director for the North Dakota State Electrical Board. He worked for them for twenty-seven years. He is in opposition to the bill. He addressed question that were asked earlier and answered new ones. (52:30-1:00:00)

Lyle Wergeland, Director of Inspections, North Dakota Electrical Board: In opposition to the bill. Written Testimony Attached (8). (1:00:35-1:04:23)

James Schmidt, Executive Director, North Dakota State Electrical Board: In opposition to the bill. Written Testimony Attached (9). (1:04:40-1:06:45)

Kendrick Kjorsvik, District Inspector for the North Dakota Electrical Board: In opposition to the bill. He did not speak to the committee just handed out his testimony. Written Testimony Attached (10).

Chairman Klein: Closed the hearing.

2015 SENATE STANDING COMMITTEE MINUTES

Industry, Business and Labor Committee Roosevelt Park Room, State Capitol

SB 2350
2/9/2015
Job Number 23470

- ☐ Subcommittee
☐ Conference Committee

Committee Clerk Signature



Explanation or reason for introduction of bill/resolution:

Relating to functions that do not require licensure as an electrician

Minutes:

Attachment

Chairman Klein: Opened the meeting. There were talk about some amendments and it seemed to me we were carving out some exemptions for some electricians but this got bigger than what we expected.

Senator Campbell: Handed out an amendment giving the oil companies and okay to do this providing that they have training and specific electrical training. They wanted to put farmers in here as well but I didn't because I didn't want to address that issue. Amendment Attached (1).

Chairman Klein: What we are doing here is allowing those companies that are involved in exploration and production of oil to on the operators own specific equipment and for which the supply is 24 volts, from the 50 volts that was originally discussed, and they have to provide proper safety training on the equipment.

Senator Campbell: Yes we compromised from fifty down to twenty-four. The reason is they have to wait two weeks for someone to come and they get a huge bill when their staff could do it.

Senator Campbell: Made a motion to adopt the amendment.

Senator Miller: Seconded the motion.

Senator Sinner: Said that voltage was not the concern it was about amperage and did he discuss it with anyone from the electrical industry before he put this amendment together?

Senator Campbell: No I did not because this is only allowing the oil companies permission to go from 24 volts or less so it shouldn't affect them because they will still be under the regulation of the original intent of the bill.

Senator Sinner: So what does this amendment do?

Senator Campbell: It only changes one thing and that is it allows the oil companies employee, if they take the safety training class they can wire themselves 24 volts or less.

Roll Call Vote: Yes-4 No-3 Absent-0

Senator Campbell: Moved a do pass as amended.

Senator Poolman: Seconded the motion.

Senator Murphy: Said it's just not safe and we have enough trouble with safety out in the oil patch. I will not vote to put more lives in danger.

Senator Campbell: The oil industry wants to ensure safety and the people they would have working on these smaller projects are professionals that know what they are doing.

Roll Call Vote: Yes-3 No-4 Absent-0

Senator Sinner: Moved a do not pass as amended.

Senator Murphy: Seconded the motion.

Roll Call Vote: Yes-4 No-3 Absent-0

Senator Murphy will carry the bill.

February 9, 2015

2/9/15

PROPOSED AMENDMENTS TO SENATE BILL NO. 2350

Page 2, line 1, remove "An employee or representative of a company when engaged in electrical work within"

Page 2, replace lines 2 and 3 with "An operator involved in the exploration and production of oil and gas if engaged in electrical work on the operator's own equipment and if the supply voltage does not exceed twenty-four volts. The operator shall provide proper safety training and equipment-specific electrical training for the operator's particular applications."

Renumber accordingly

**2015 SENATE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2350**

Senate Industry, Business and Labor Committee

☐ Subcommittee

Amendment LC# or Description: 15.0992.01001

Recommendation: ☒ Adopt Amendment
☐ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☐ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Senator Campbell Seconded By Senator Miller

Senators	Yes	No	Senators	Yes	No
Chairman Klein	x		Senator Murphy		x
Vice Chairman Campbell	x		Senator Sinner		x
Senator Burckhard		x			
Senator Miller	x				
Senator Poolman	x				

Total (Yes) 4 No 3

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

**2015 SENATE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2350**

Senate Industry, Business and Labor Committee

☐ Subcommittee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☒ Do Pass ☐ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar

Other Actions: ☐ Reconsider ☐ _____

Motion Made By Senator Campbell Seconded By Senator Poolman

Senators	Yes	No	Senators	Yes	No
Chairman Klein	x		Senator Murphy		x
Vice Chairman Campbell	x		Senator Sinner		x
Senator Burckhard		x			
Senator Miller		x			
Senator Poolman	x				

Total (Yes) 3 No 4

Absent 0

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

**2015 SENATE STANDING COMMITTEE
ROLL CALL VOTES
BILL/RESOLUTION NO. SB 2350**

Senate Industry, Business and Labor Committee

☐ Subcommittee

Amendment LC# or Description: _____

Recommendation: ☐ Adopt Amendment
☐ Do Pass ☒ Do Not Pass ☐ Without Committee Recommendation
☒ As Amended ☐ Rerefer to Appropriations
☐ Place on Consent Calendar
Other Actions: ☐ Reconsider ☐ _____

Motion Made By Senator Sinner Seconded By Senator Murphy

Senators	Yes	No	Senators	Yes	No
Chairman Klein		x	Senator Murphy	x	
Vice Chairman Campbell		x	Senator Sinner	x	
Senator Burckhard	x				
Senator Miller	x				
Senator Poolman		x			

Total (Yes) 4 No 3

Absent 0

Floor Assignment Senator Murphy

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2350: Industry, Business and Labor Committee (Sen. Klein, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO NOT PASS** (4 YEAS, 3 NAYS, 0 ABSENT AND NOT VOTING). SB 2350 was placed on the Sixth order on the calendar.

Page 2, line 1, remove "An employee or representative of a company when engaged in electrical work within"

Page 2, replace lines 2 and 3 with "An operator involved in the exploration and production of oil and gas if engaged in electrical work on the operator's own equipment and if the supply voltage does not exceed twenty-four volts. The operator shall provide proper safety training and equipment-specific electrical training for the operator's particular applications."

Renumber accordingly

2015 TESTIMONY

SB 2350

Senate Bill 2350
Testimony of J. Roger Kelley
Senate Industry, Business and Labor Committee
February 2, 2015

Continental Resources, Inc. is a significant producer of oil and gas in the North Dakota Bakken oil play and, as such, constructs and maintains a large number of oil and gas handling facilities in the state. We therefore support SB2350 in the exemption of low voltage installations from the licensed electrician requirement of the North Dakota Electrical Board. This exemption will enable oil and gas producers across the state to build and maintain these low voltage facility systems more efficiently with no net increase in risk to person or operations.

To explain, North Dakota does not currently acknowledge the difference between low voltage and high voltage electrical systems in their license as do many of the adjacent states. A large number of industrial and commercial applications involve low voltage electrical systems, the same which in North Dakota require supervision and/or inspection by licensed Master Electricians. Examples of low voltage electrical systems include:

- Lawn sprinklers,
- Burglar alarms,
- SCADA (supervisory control and data acquisition),
- Fire alarms,
- Security systems,
- Telecommunication,
- Satellite Television,
- Motor vehicles and large mobile equipment.

These systems are installed and serviced by trained Technicians equipped with unique skills in each particular application. The voltages involved are low, twelve to twenty-four (12-24) volts, such that the risk to the Technicians or other workers to electrical impact is minimal. Their training stresses correct and safe installation of equipment. This low level voltage is comparable to that of a battery used in vehicles or other large equipment.

A prime example of the low voltage application in oil and gas production operations is the SCADA system mentioned above. SCADA systems are used to monitor and control fluid levels, fluid pressures, fluid flow, fluid temperatures, and fluid levels in oil wells and the associated production equipment. In these systems, an incorrectly installed pressure transducer or high tank level switch can result in a tank over flowing or a missed pipeline leak. A licensed electrician is neither trained nor qualified to properly install or maintain a SCADA system, as the licensed electrician and SCADA Technician are two separate trades with two different skill sets.

The North Dakota State Electrical Board (NDSEB) requires licensed electricians to install and service low voltage equipment (less than 50 volts) like the SCADA equipment mentioned above. The North Dakota licensed electrician is the same type whose skills and

Senate Bill 2350
Testimony of J. Roger Kelley
Senate Industry, Business and Labor Committee
February 2, 2015

abilities allow them to wire an industrial complex, office, or home that uses 480, 220, 100 volts for light and heat.

SB 2350 does not remove the need to meet National Electrical Code (NEC). Rather it allows licensed electricians to focus on installing and servicing homes, business and industries with electrical power, heat, and light. The current license requirement for that same level of expertise on low voltage applications has resulted in higher costs and construction delays owing to the lack of available licensed electricians. And the use of a licensed electrician for these specialized, low voltage applications does not necessarily represent an increase in safety nor in job proficiency.

Continental recommends a Do Pass on SB2350 and suggests that the cost and time savings will be realized in enhanced job security for oil and gas and other energy workers, especially in light of the challenges currently facing this industry. Energy in North Dakota represents tax revenue to the state and jobs for her citizens.



National Electrical Contractors Association
THE VOICE OF THE ELECTRICAL CONSTRUCTION INDUSTRY

HOME (.../.../HOME) > PROFESSIONAL DEVELOPMENT (.../.../PROFESSIONAL-DEVELOPMENT) >
CAREERS IN ELECTRICAL CONTRACTING (.../.../CAREERS-IN-ELECTRICAL-CONTRACTING) >
LICENSURE (.../.../LICENSURE) >
STATE CODE & LICENSING REQUIREMENTS (.../STATE-CODE-LICENSING-REQUIREMENTS) >
LOW VOLTAGE STATE LICENSING REQUIREMENTS (JAVASCRIPT: VOID(0))

Low Voltage State Licensing Requirements

State Low Voltage Licensing

- [Alabama \(#alabama\)](#)
- [Alaska \(#alaska\)](#)
- [Arizona \(#srizona\)](#)
- [Arkansas \(#arkansas\)](#)
- [California \(#california\)](#)
- [Connecticut \(#connecticut\)](#)
- [Colorado \(#colorado\)](#)
- [Delaware \(#delaware\)](#)
- [Florida \(#florida\)](#)
- [Georgia \(#georgia\)](#)
- [Hawaii \(#hawaii\)](#)
- [Idaho \(#idaho\)](#)
- [Illinois \(#illinois\)](#)
- [Indiana \(#indiana\)](#)
- [Iowa \(#iowa\)](#)
- [Kansas \(#kansas\)](#)
- [Kentucky \(#kentucky\)](#)
- [Louisiana \(#louisiana\)](#)
- [Maine \(#maine\)](#)
- [Maryland \(#maryland\)](#)
- [Massachusetts \(#massachusetts\)](#)
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- [New Mexico \(#newMexico\)](#)
- [New York \(#newYork\)](#)
- [North Carolina \(#northCarolina\)](#)
- [North Dakota \(#northDakota\)](#)
- [Ohio \(#ohio\)](#)
- [Oklahoma \(#oklahoma\)](#)
- [Oregon \(#oregon\)](#)
- [Pennsylvania \(#pennsylvania\)](#)
- [Rhode Island \(#rhodelsland\)](#)
- [South Carolina \(#southCarolina\)](#)
- [South Dakota \(#southDakota\)](#)
- [Tennessee \(#tennessee\)](#)
- [Texas \(#texas\)](#)
- [Utah \(#utah\)](#)
- [Vermont \(#vermont\)](#)
- [Virginia \(#virginia\)](#)
- [Washington \(#washington\)](#)
- [West Virginia \(#westVirginia\)](#)
- [Wisconsin \(#wisconsin\)](#)
- [Wyoming \(#wyoming\)](#)

Alabama

People who need to be licensed

• Installer/Technician

• Salesperson

- Central Station
- Locksmith
- Owner
- Manager/Branch Manager

Application Process

Contact the Alabama Electronic Security Board of Licensure for an application. For a complete listing of rules and procedures for licensure, visit the web site listed below, and click the section for "rules."

Fees

\$150.00 Administrative Fee (One time fee upon the first application)

See the rules and regulations PDF at the below URL for more information about license fees.

- **Alabama Electronic Security Board of Licensure (<http://www.aesbl.com>)**
- 7956 Vaughn Road, PMB 392
- Montgomery, AL (Alabama) 36116
- Phone: (334) 264-9388
- Fax: (334) 264-9332
- www.aesbl.com (<http://www.aesbl.com>)

Alaska**License Types**

- Communications Contractors
Installs telephone wiring and equipment, radio communications devices and equipment, audiovisual equipment, and navigational equipment.
- Low Voltage Alarm or Signaling Device Contractor
Installs fire sensing and signaling devices, intrusion or proximity detection and signaling devices, or automatic fire protection systems, except sprinkler systems.

Application Process

A specialty contractor is limited to three non-mechanical trades, such as communications and low voltage alarm and signaling devices. Download the [application for the General, Mechanical and Specialty Contractor](http://www.dced.state.ak.us/occ/pub/con4027.pdf) (<http://www.dced.state.ak.us/occ/pub/con4027.pdf>)

Please note that all construction contractors required to be licensed by the State of Alaska MUST first apply for an Alaska Business License. For more information about this, call (907) 465-2550, or visit www.dced.state.ak.us (<http://www.dced.state.ak.us/occ/buslic.htm>)

Fees

- Application fee: \$50.00
- License fee: \$200.00
- Renewal fee: Biennial registration renewal fee (for all or part of the licensing period) \$200.00
- **Department of Community and Economic Development (<http://www.commerce.state.ak.us/occ/pcon.htm>)**
- Division of Occupational Licensing
- Contractor Licensing Section

- 333 Willoughby Ave., 9th floor
- Juneau, AK (Alaska) 99811-0806
- [www.commerce.state.ak.us \(http://www.commerce.state.ak.us/occ/pcon.htm\)](http://www.commerce.state.ak.us/occ/pcon.htm)

Arizona

License Types

Specialty Residential Contracting:

- C-12: Low Voltage Communication Systems
Installation and repair of low voltage alarm, intercom, telephone, call, clock and television systems, including towers and antennas.
- C-16: Fire protection Systems
Installation and repair of fire prevention and protection systems including all low voltage signaling systems.

Specialty Dual License Contracting:

- K-16: Fire protection Systems
This classification allows the scope or work permitted by the commercial L-16 Fire Protection Systems and the residential C-16 Fire Protection Licenses.
- K-67: Low Voltage Communications Systems
This classification allows the scope of work permitted by the commercial L-67 Low Voltage Communications Systems, and the residential C-12 Low Voltage Communications Systems Licenses.

Specialty Commercial Contracting:

- L-67: Low Voltage Communication Systems
Installation, service, repair, and maintenance of systems and devices of low voltage, including public address; intercommunication systems; telephone switchboards; call systems; master and program clocks (Low voltage wiring and needed equipment only.)

For a complete list of Contractor's License Classifications, visit: www.rc.state.az.us (http://www.rc.state.az.us/l_class.html).

Application Process

For a list of the steps involved in applying for a license, and to download an application, visit the following link: www.rc.state.az.us (http://www.rc.state.az.us/l_app.html).

- [Arizona Registrar for Contractors \(http://www.rc.state.az.us/\)](http://www.rc.state.az.us/)
- 800 West Washington
- 6th floor
- Phoenix, AZ (Arizona) 85007-2940
- (602) 542-1525
- [www.rc.state.az.us \(http://www.rc.state.az.us/\)](http://www.rc.state.az.us/)

Arkansas

The State of Arkansas requires special licensing for security alarm system installation/monitoring.

For licensing information with the Arkansas State Police, telephone the Regulatory Services office at: (501) 618-8600

- [Arkansas State Police Headquarters \(http://www.asp.state.ar.us/divisions/rs/rs_index.html#blue\)](http://www.asp.state.ar.us/divisions/rs/rs_index.html#blue)

- 1 State Police Plaza Drive
- Little Rock, AR (Arkansas) 72209

[www.asp.state.ar.us \(http://www.asp.state.ar.us/divisions/rs/rs_index.html#blue\)](http://www.asp.state.ar.us/divisions/rs/rs_index.html#blue)

California

The State of California requires special licensing for Low Voltage Electrical Contractors, and for the installation and maintenance of burglar alarms.

License Types Low Voltage

Low Voltage Systems Contractor

C-7 License: Low Voltage Systems Contractor

Installs, services and maintains all types of communication and low voltage systems which are energy limited and do not exceed 91 volts. These systems include, telephone systems, sound systems, cable television systems, closed-circuit video systems, satellite dish antennas, instrumentation and temperature controls, and low voltage landscape lighting. Low voltage fire alarm systems are specifically not included in this section.

Application Process

Download an application packet at [www.cslb.ca.gov \(http://www.cslb.ca.gov/services/forms.asp\)](http://www.cslb.ca.gov/services/forms.asp) by clicking on the PDF for "Application for Contractor's License." Here, applicants can find information and download an application to gain a C-7 License: Low Voltage Systems Contractor.

Fees

Low Voltage/Electric Contractor Single classification: \$250

[California State Licensing Board \(http://www.cslb.ca.gov\)](http://www.cslb.ca.gov)

- For Low Voltage and General Electrical Contractors
- 9821 Business Park Drive
- >
- Sacramento, CA (California) 95826-0026
- [www.cslb.ca.gov \(http://www.cslb.ca.gov\)](http://www.cslb.ca.gov)

License types required for Burglar alarm work

- Alarm Company Operator License
Needed for a business that sells, installs, monitors, maintains, services or responds to alarm systems. In order for a company to seek this license, there must be a Qualified Manager on staff.
- Qualified Manager
An individual who will manage the business on a day-to-day basis. Must have passed the licensing examination.
- Alarm Agent (registration)
Employed by an alarm company operator to sell, install, monitor, maintain, service or respond to alarm systems or to supervise such actions.

Application Process

Applications for registration as an alarm agent are available from alarm company operators. To request an application for licensure as an Alarm Company operator or Qualified Manager, call (916) 322-4000 or (800) 952-5210, or visit the [BSIS web site \(http://www.dca.ca.gov/bsis\)](http://www.dca.ca.gov/bsis).

Application Fees

- Alarm Company Operator: \$35
- Qualified Manager: \$105
- Alarm Agent: \$17 Registration fee

- **Bureau of Security and Investigative Services (BSIS)** (<http://www.dca.ca.gov/bsis/bsisarl.htm>)
- For Burglar Alarm installation, service, etc.
- 401 S Street, Suite 101
- Sacramento, CA (California) 95814
- Phone: (916) 322-4000
- Fax: (916) 323-1182
- www.dca.ca.gov (<http://www.dca.ca.gov/bsis/bsisarl.htm>)

Connecticut

License Types

- Limited Electrical Contractor (L-5)
Covers work in ADT, Low voltage signal work, audio and sound systems (voltage of any system not to exceed 25 volts)
- Limited Electrical Contractor (C-5)
ADT, low voltage signal work, telephone-interconnect systems (to voltage of any system is not to exceed 48 volts)
- Limited Electrical Journeyman (C-6)
May perform the same work as C-5 contractor, but must be in the employment of a licensed C-5 contractor.

Application Process

Applications (<http://www.dcp.state.ct.us/licensing/occprotrades.htm>) are available online.

Application Fees

- Limited Electrical Contractor (L-5): \$75.00
- Limited Electrical Contractor (C-5): \$75.00
- Limited Electrical Journeyman (C-6): \$45.00
- **Department of Consumer Protection, Occupational & Professional Licensing Division** (<http://www.state.ct.us/dcp>)
- 165 Capitol Ave., Room 147
- Hartford, CT (Connecticut) 06106
- Phone: (860) 713-6000
- www.state.ct.us (<http://www.state.ct.us/dcp>)

Colorado

The State of Colorado does not license or register burglar alarm or fire alarm installations. Alarm installation and sales businesses are frequently licensed on the local level. Always contact the local city or county government to determine local requirements.

More detailed information (<http://www.state.co.us/oed/industry/IndDetail.cfm?id=25>)

Delaware

License Types

Master Electrician

- Master Limited
- Master Electrician Special
- Limited Electrician Special

Download applications (<http://www.professionallicensing.state.de.us/boards/electrician/newlicense.shtml>)

Fees

Contact the Board of Electrical Examiners for more information.

- **State of Delaware Department of Administrative Services**
(<http://www.professionallicensing.state.de.us/default.shtml>)
Division of Professional Regulation
Board of Electrical Examiners
- 861 Silver Lake Boulevard, Ste. 203
- Dover, DE (Delaware) 19904
- (302) 744-4500
- Fax: (302) 739-2711
- www.professionallicensing.state.de.us (<http://www.professionallicensing.state.de.us/default.shtml>)

Florida

License Types

- Registered Alarm Contractor I
Fire and Burglar
- Registered Alarm System Contractor II
Burglar Only
- Specialty Electrical Contractor
This includes Limited Energy (low voltage) Systems Specialty Contractor

Download applications (<http://www.myflorida.com/dbpr/pro/forms/elboard/index.shtml>)

- Department of Business and Professional Regulation
Division of Professions
Electrical Contractors' Licensing Board
- 1940 North Monroe Street
- Tallahassee, FL (Florida) 32399-0771
- Phone: 850-487-1395
- E-mail: callcenter@dbpr.state.fl.us (<mailto:callcenter@dbpr.state.fl.us>)
- for e-mails, include "Electrical" in subject line.

Georgia

License Type

- Low Voltage Contractor
Includes alarm systems and telecommunication systems

Application Process

Download applications (http://www.sos.state.ga.us/plb/construct/download_forms.htm)

Fees

\$30.00 non-refundable application fee. No license fee—mailed to applicants within 6 weeks of passing exam. Renewal fee for a two-year period is \$75.00

Georgia State Construction Industry Licensing Board (<http://www.sos.state.ga.us/plb/construct/>)

Division of Low Voltage Contractors

- 237 Coliseum Drive
- Macon, GA (Georgia) 31217-3858
- Phone: (478) 207-1416
- Fax: (478) 207-1425
- www.sos.state.ga.us (<http://www.sos.state.ga.us/plb/construct/>)

Hawaii

Types of Licenses

- Journey Worker Specialty Electrician
- Supervising Specialty Electrician

Applications

Download applications (http://www.hawaii.gov/dcca/pvl/areas_electrician.html)

Fees

- Application fee: \$40.00
- License fee
- \$225.00 if licensed between July 1 and June 30 of the first year of the triennium.
- \$150.00 if licensed between July 1 and June 30 of the 2nd year of the triennium.
- \$75.00 is licensed between July 1 and June 30 of the 3rd year of the triennium.
- Renewal fee: \$225.00
- **State of Hawaii Department of Commerce and Consumer Affairs**
(http://www.hawaii.gov/dcca/pvl/areas_electrician.html)
- P.O. Box 3469
- Honolulu, HI (Hawaii) 96801
- E-mail: Elect_plumb@dcca.hawaii.gov (mailto:Elect_plumb@dcca.hawaii.gov)
- www.hawaii.gov (http://www.hawaii.gov/dcca/pvl/areas_electrician.html)

Idaho

Types of Licenses

- Specialty Electrical Contractor's License
- Specialty Journeyman License

Application Process

Downloaded an [application for a Specialty Electrical License \(http://www2.state.id.us/dbs/electrical/forms/ef-511.pdf\)](http://www2.state.id.us/dbs/electrical/forms/ef-511.pdf)

Downloaded an [application for a Specialty Electrical Contractor's License](http://www2.state.id.us/dbs/electrical/forms/ef-515.pdf)

<http://www2.state.id.us/dbs/electrical/forms/ef-515.pdf>

Fees

- Application Fee: \$15.00 administrative fee for both
- License Fee:
 - For Specialty Journeyman: \$55.00
 - For Specialty Contractors: \$125.00
- **Division of Building Safety (<http://www2.state.id.us/dbs/electrical/index.html>)**
- Electrical Bureau, Licensing Section
- 1090 E. Watertower St.
- Meridian, ID (Idaho) 83642
- Phone: (208) 334-2183
- Fax: (208) 855-2165
- **www2.state.id.us (<http://www2.state.id.us/dbs/electrical/index.html>)**

Illinois

No statewide licensing of electrical contractors or journeyman is required. **There is separate licensing required for any firm that installs or maintains fire and burglar alarm systems.**

- **[Illinois Department of Financial and Professional Regulation \(http://www.idfpr.com/\)](http://www.idfpr.com/)**
- 320 W. Washington
- Springfield, IL (Illinois) 62786
- Phone: (217) 785-0800
- Fax: (217) 782-7645
- **www.idfpr.com/ (<http://www.idfpr.com/>)**

Indiana

There is no statewide licensing; though most municipalities have contractor licensing. Some municipalities have low voltage/specialty licensing. Contact the following office for more information:

- **[Office of the State Building Commissioner \(http://www.in.gov/sema/osbc/\)](http://www.in.gov/sema/osbc/)**
- 402 West Washington Street, Room W246
- Indianapolis, IN (Indiana) 46204-2739
- Phone: (317) 232-6213
- Fax: (317) 232-0146
- **www.in.gov (<http://www.in.gov/sema/osbc/>)**

Iowa

There is no statewide licensing for electrical journeyman, contractors, or specialty licenses. The State Fire Marshal has the authority to inspect for fire hazards.

- **[Iowa Department of Public Safety \(http://www.iowa.gov/\)](http://www.iowa.gov/)**
- Division of State Fire Marshal
- 621 East Second Street
- Des Moines, IA (Iowa) 50309-1831
- Phone: (515) 281-1831

- Fax: (515) 242-6299
- www.iowa.gov (<http://www.iowa.gov/>)

Kansas

At this time there is no statewide licensing or specialty licensing.

Kentucky***License Types***

- Electrical Contractor
- Master Electrician
- Electrician

These licenses are required to perform any electrical work in the state of Kentucky. Please note, however, that workers installing or repairing low-voltage telecommunications systems are exempt from licensure. There is separate licensure for the fire protection alarm systems.

The Fire Protection Systems Section licenses fire protection contractors. Download [applications and forms for alarm licenses \(http://hbc.ppr.ky.gov/FireProtectionSystems.htm\)](http://hbc.ppr.ky.gov/FireProtectionSystems.htm).

Application Process

Download [applications \(http://hbc.ppr.ky.gov/formslibrary.htm\)](http://hbc.ppr.ky.gov/formslibrary.htm)

Fees

- Application fee for Electrical Contractor: \$200
- Application fee for Master Electrician: \$100
- Application fee for Electrician: \$50
- All fees are non-refundable
- [Environmental and Public Protection Cabinet \(http://hbc.ppr.ky.gov/electrical_licensing.htm#2\)](http://hbc.ppr.ky.gov/electrical_licensing.htm#2)
- Office of Housing, Buildings and Construction
- 101 Sea Hero Rd. Suite 100
- Frankfort, KY (Kentucky) 40601
- Phone: (502) 573-0364
- Fax: (502) 564-4011
- [hbc.ppr.ky.gov \(http://hbc.ppr.ky.gov/electrical_licensing.htm#2\)](http://hbc.ppr.ky.gov/electrical_licensing.htm#2)

Louisiana***License Types***

- Type A Firm-Full Burglar Alarm, Access Control and CCTV
- Type A-1 Firm-Single Station Fire Alarm in 1&2 Family Dwellings
- Type A Employee
- Type A-1 Employee
- Type A-4 Firm- CCTV Alarm System Contractor
- Type A-4 Employee
- Class D – Fire Detection and Alarm for Fires

- Class D-1- Non-required Fire Alarm
- Class D-2- Minor Service & repair to own Fire Alarm Systems

Application Process

- Fire Alarm Licenses (http://www.dps.state.la.us/sfm/Insng/lic_fireprot.htm)
- Burglar, CCTV or access control (http://www.dps.state.la.us/sfm/Insng/lic_burglock.htm)

Fees

- License Fee: Original Firm fee for Electronic protective system licenses (Burglar): \$250.00
- Original Employee fee for Electronic protective system licenses: \$100
- Fire Alarm Firm and Employee fees (http://www.dps.state.la.us/sfm/Insng/lic_fireprot.htm)
- Department of Public Safety & Corrections (<http://www.dps.state.la.us/sfm/>)
- Office of the State Fire Marshal
- 8181 Independence Boulevard
- Baton Rouge, LA (Louisiana) 70806
- Phone: (800) 256-5452 or
- Phone: (225) 925-4911
- Fax: (225) 925-3699
- www.dps.state.la.us (<http://www.dps.state.la.us/sfm/>)

Maine

License Type

- Limited Electrician in Low Energy. This includes:
 - Fire Alarms
 - Low-energy electronics
 - Low-voltage landscape lighting

Application Process

Download [applications \(<http://www.state.me.us/pfr/olr/PDF/elecexam.pdf>\)](http://www.state.me.us/pfr/olr/PDF/elecexam.pdf)

Fees

- Application Fee: \$25.00
- License Fee: \$100.00
- Renewal Fee: For Limited Electrician (renewal necessary every 2 years): \$100.00
- Maine Department of Professional and Financial Regulation (<http://www.state.me.us/pfr/olr/categories/cat16.htm>)
- Office of Licensing and Registration
- www.state.me.us (<http://www.state.me.us/pfr/olr/categories/cat16.htm>)
- Electrician's Examining Board (<http://www.state.me.us/pfr/olr>)
- 35 State House Station
- Augusta, ME (Maine) 04333-0035
- Phone: (207) 624-8610

- Fax: (207) 624-8637
- [www.state.me.us \(http://www.state.me.us/pfr/olr\)](http://www.state.me.us/pfr/olr)

Maryland

The State Board of Master Electricians issues only one license: Master Electrician. In Maryland the actual performance licenses to perform electrical work is issued by each of the municipalities. Many of the municipalities do issue additional categories of electrical licenses. All of these licenses are “lesser” than a Master Electrician. For example, some local municipalities may issue a “limited electrician” or “low voltage” license. Individuals interested in obtaining a lesser license must contact the local jurisdiction where he or she intends to be doing that kind of work. Not all municipalities offer a lesser license. In the municipalities that do not offer a lesser license, an individual would need to hold a master electrician’s license to perform any kind of electrical work.

Contact the Division of Occupational and Professional Licensing if you have any questions.

- [Division of Occupational and Professional Licensing \(http://www.dllr.state.md.us\)](http://www.dllr.state.md.us)
- State Board of Master Electricians
- 500 North Calvert St., Room 302
- Baltimore, MD (Maryland) 21202
- Phone: (410) 230-6163
- Fax: (410) 333-6314
- [www.dllr.state.md.us \(http://www.dllr.state.md.us\)](http://www.dllr.state.md.us)

Massachusetts

License Types

- Systems Contractor
- Systems Technician

“Systems” include fire warning, and security.

Application Process

Obtain an [application \(http://www.mass.gov/dpl/boards/el/forms.htm\)](http://www.mass.gov/dpl/boards/el/forms.htm)

Fees

[Fees and renewal information \(http://www.mass.gov/dpl/boards/el/misc/addsystc.htm\)](http://www.mass.gov/dpl/boards/el/misc/addsystc.htm)

- [Division of Professional Licensure \(http://www.mass.gov/reg/boards/el\)](http://www.mass.gov/reg/boards/el)
- 239 Causeway St., Suite 500
- Boston, MA (Massachusetts) 02114
- Phone: ((617) 727-9931
- Fax: (617) 727-5012
- [www.mass.gov \(http://www.mass.gov/reg/boards/el\)](http://www.mass.gov/reg/boards/el)

Michigan

License Types

- Systems Contractor (“systems” includes fire alarm and security)
- Systems Technician

Application Process

Download the [PDF for an Electrical/Fire Alarm/Sign Contractor Examination](http://www.michigan.gov/documents/cis_bcc_econtexam_81721_7.pdf)
(http://www.michigan.gov/documents/cis_bcc_econtexam_81721_7.pdf)

Download a [PDF for a Fire Alarm Specialty Technician Examination](http://www.michigan.gov/documents/cis_bcc_elefstex_64296_7.pdf)
(http://www.michigan.gov/documents/cis_bcc_elefstex_64296_7.pdf)

Fees

- Application Fee: \$25.00 (non-refundable)
- License Fee: \$20.00
- Department of Labor and Economic Growth (<http://www.michigan.gov/bccfs>)
- Bureau of Construction Codes & Fire Safety
- Electrical Division
- P.O. Box 30254
- Lansing, MI (Michigan) 48909
- Phone: (517) 241-9320
- Fax: (517) 241-9320
- www.michigan.gov (<http://www.michigan.gov/bccfs>)

Minnesota**License Types**

- Power Limited Technician
- Technology Systems Contractor

Application Process

Application forms are not available online. You must request all necessary forms from the Minnesota Electricity Board
(http://www.electricity.state.mn.us/lib/Include/spx_frm.html).

Fees

- License
 - For Power Limited Technician: \$30.00
 - For Technology Systems Contractor: \$100 per year
- Department of Labor and Economic Growth (<http://www.electricity.state.mn.us>)
- Minnesota Electricity Board
- 1821 University Ave., Suites S-128
- Saint Paul, MN (Minnesota) 55104-2993
- Phone: (651) 642-0800
- Fax: (651) 642-0441
- www.electricity.state.mn.us (<http://www.electricity.state.mn.us>)

Mississippi

this time there appears to be no statewide specialty electrical licensing.

Missouri

There is no statewide specialty electrical licensing, however, local jurisdictions do offer specific licensing to perform certain electrical work. Therefore, individuals must contact the specific jurisdiction where the work is to be performed to find out what licensing is necessary.

Montana

License Types

- Alarm Installer (AI)

Application Process

Download the Alarm Systems Installer application

(http://www.discoveringmontana.com/dli/bsd/license/bsd_boards/psp_board/licenses/psp/sai_license.asp)

Fees

- Security guard and Alarm Installer: \$25.00
- Montana Department of Labor and Industry (<http://Discoveringmontana.com/dli/psp>)
- Board of Private Patrol Officers and Investigators
- 301 South Park, Room 430
- P.O. Box 200513
- Helena, MT (Montana) 59620-0513
- Phone: (406) 841-2387
- Fax: (406) 841-2309
- E-mail: dlibsdpsp@state.mt.us (<mailto:dlibsdpsp@state.mt.us>)
- [discoveringmontana.com](http://Discoveringmontana.com/dli/psp) (<http://Discoveringmontana.com/dli/psp>)

Nebraska

License Types

- Fire Alarm Installer

Application Process

Download a licensing exam application (<http://www.electrical.state.ne.us/license.html#applications>)

Fees

- FA Examination Fee
\$60.00
- FA License Fee
The fee for a license issued in an even numbered year is \$25.00. The fee for a license issued in an odd numbered year is \$50.00.
- State Electrical Board (<http://www.electrical.state.ne.us>)
- P.O. Box 95066
- 800 South 13th, Suite 109
- Lincoln, NE (Nebraska) 68509
- Phone: (402) 471-3550
- Fax: (402) 471-4297
- www.electrical.state.ne.us (<http://www.electrical.state.ne.us>)

Nevada

License Types

The State of Nevada divides contractors into different classifications. There are primary classifications, and sub-classifications. Sub-classifications specify the types of work the contractor will be licensed to perform.

Primary Classification C2- Electrical Contractor

- Subclassification C2C- Fire Detection
- Subclassification C2E- Signal Systems
- Subclassification C-2d- Low Voltage Systems
- Subclassification C-2h- Photovoltaics

Primary Classification C41- Fire Protection

- Subclassification C41C- Fire Alarms

More information regarding the Classification of Contractors (<http://www.leg.state.nv.us/NAC/NAC-624.html#NAC624Sec140>)

Application Process

Download application forms (http://www.nscb.state.nv.us/Contractor_info/Contractor_Forms.htm)

Fees

Please contact the State Contractors Board for information regarding fees.

- Nevada State Contractors Board (<http://www.nscb.state.nv.us>)
- 9670 Gateway Drive, Suite 100
Reno, NV (Nevada) 89521
- Phone: (775) 688-1271
- Fax: (775) 688-1150
- www.nscb.state.nv.us (<http://www.nscb.state.nv.us>)

New Hampshire

At this time, the State of New Hampshire does not appear to have any specialty licensing for low-voltage electrical work.

New Jersey

License Types

The Fire Alarm, Burglar Alarm and Locksmith Advisory Committee (<http://www.state.nj.us/lps/ca/nonmedical/firealarm.htm>), which is under the supervision of the Board of Examiners of Electrical Contractors, is currently developing rules, regulations and standards to govern the licensing and practice of fire and burglar alarm installers.

- Burglar Alarm License
- Fire Alarm License

Application Process

View the application PDF (<http://www.state.nj.us/lps/ca/electric/alarmpacket.pdf>)

Fees

Background Check: \$33.00

The Board must conduct a mandatory background check on all Fire Alarm, and Burglar Alarm applicants.

Application: \$150.00

Individuals who wish to apply for both a fire alarm and burglar alarm license must fill out two separate applications. The first license applied for will be \$150.00. The second license applied for is \$100.00.

- State of New Jersey
- Department of Law & Public Safety
- Division of Consumer Affairs
- Board of Examiners of Electrical Contractors
- Fire Alarm, Burglar Alarm and Locksmith Advisory Committee
- P.O. Box 45042
- Newark, NJ (New Jersey) 07101
- Phone: (973) 504-6245
- www.state.nj.us/lps/ca/nonmedical/electrical.htm (<http://www.state.nj.us/lps/ca/nonmedical/electrical.htm>)
- www.state.nj.us/lps/ca/nonmedical/firealarm.htm (<http://www.state.nj.us/lps/ca/nonmedical/firealarm.htm>)

New Mexico

License Types

Electrical Contractor

Electrical contractors are issued a certificate of competence by the Construction Industries Division. The low voltage certificate types are listed below:

- ES-3: Sound and Intercommunication and Electrical Alarm Systems
- ES-7: Telephone Communications Systems

Journeyman Electrician

Low voltage certificate of competence types for journeyman electricians are listed below:

- ES-3J: Sound and Intercommunication and Electrical Alarm Systems
- ES-7J: Telephone Communications Systems

Application Process

Contact the Construction Industries Division for applications.

Fees

The fee for a certificate of competence is \$25.00 per year for each classification held.

- [Construction Industries Division \(http://www.rld.state.nm.us\)](http://www.rld.state.nm.us)
- State of New Mexico Regulation and Licensing Department
- 725 St. Michael's Drive
- P.O. Box 25101
- Santa Fe, NM (New Mexico) 87504
- Phone: (505) 827-7030
- Fax: (505) 827-7045

- www.rld.state.nm.us (<http://www.rld.state.nm.us>)

New York

Licensing Types

No individual may engage in the business of installing, servicing or maintaining security or fire alarm systems or hold him or herself out as being able to do so unless he or she is licensed by the State of New York.

- Security Alarm Installer
- Fire Alarm Installer

Application Process

Applications cannot be downloaded online. Please use the provided information to order an application:

- Contact and Ordering Info:
- Keith W. Stack
- Deputy Secretary of State for Business and Licensing Services
- Department of State
- Division of Licensing Services
- 84 Holland Ave.
- Albany, NY (New York) 12208-3490
- E-mail: licensing@dos.state.ny.us (<mailto:licensing@dos.state.ny.us>)
- Phone: (518) 474-4429
- Fax: (518) 473-6648

Fees

There are several payment instruments. Only one payment instrument is required.

1. Examination and Education: \$260.00 (This includes \$185 application fee and \$75.00 NY State fingerprint fee)
 2. Experience and Education: \$275.00 (includes \$200.00 application fee and \$75.00 NY State Fingerprint fee)
 3. Master Electrician Status: Individuals licensed as master electricians who wish to engage in the installation, servicing or maintaining of security or fire alarm systems are not exempt from filing with the Department of State. However, two forms of waiver from some of the specific licensing requirements (by virtue of their status as a licensed master electrician) are available and outlined on the application form. For more information, please contact the Division of Licensing Services. Master Electrician Statewide: \$275.00 (includes \$200.00 application fee and \$75.00 NYS fingerprint fee) Master Electrician Local: \$50.00 application fee only. No fingerprint requirement.
- New York State
 - Department of State
 - Division of Licensing Services
 - 84 Holland Ave.
 - Albany, NY (New York) 12208-3490
 - Phone: (518) 474-4429
 - Fax: (518) 473-6648
 - E-mail: licensing@dos.state.ny.us (<mailto:licensing@dos.state.ny.us>)

North Carolina

License Types

There are 10 different classifications of electrical contracting licenses. One of the special restricted electrical contracting classifications is

- Low Voltage (SP-LV)

More information regarding the scope of the Low Voltage, SP-LV license
(<http://www.ncbeec.org/section0800.htm#0804>)

Application Process

After passing a qualifying exam, applicants for electrical contracting licenses in any of the license classifications must (1) submit a completed application for the license classification desired, (2) submit the appropriate annual license fee, and (3) furnish the name, signature and social security number of at least one person to serve as the listed qualified individual for the applicant's license. Applications may be obtained by calling the office (919) 733-9042 between the hours of 8:30 a.m. – 5:00 p.m.

Fees

- Examination Fee for all classifications: \$75.00
- License Fee for all *special restricted* classifications: \$60.00

List of all fees (<http://www.ncbeec.org/feesandservices.htm>)

- Board of Examiners of Electrical Contractors (<http://www.ncbeec.org>)
- P.O. Box 18727
- Raleigh, NC (New Carolina) 27619
- Phone: (919) 733-9042
- Fax: (919) 733-6105
- www.ncbeec.org (<http://www.ncbeec.org>)

North Dakota

At this time there does not appear to be any separate specialty electrical licensing.

Ohio

At this time there does not appear to be any separate specialty electrical licensing.

Oklahoma**License Types**

- Burglar Alarm Technician
- Burglar Alarm Sales
- Fire Alarm Technician-Limited
- Fire Alarm Technician-Unlimited
- Fire Alarm Sales-Limited
- Fire Alarm Sales-Unlimited
- Alarm Company
- Alarm Company Manager

Application Process

Download an application (<http://www.health.state.ok.us/program/ol/info/html>)

Fees**Initial licensing Fees:**

- Alarm Company License: \$250.00
- Alarm Technician/Alarm Technician Trainee: \$75.00
- Alarm Company Manager: \$200.00
- Alarm Salesperson: \$75.00
- Re-Examination, Per Attempt: \$50.00
- Inspector: \$75.00
- Duplicate of Revised License: \$25.00

Renewal fees:

- Alarm Company License: \$250.00
- Alarm Company Manager: \$ 100.00
- Alarm Technician: \$35.00
- Alarm Technician Trainee: \$25.00
- Alarm Salesperson: \$35.00
- Inspector: \$35.00

Oklahoma State Department of Health (<http://www.health.state.ok.us/cib/index.html>)

- Occupational Licensing Division—0509
- Alarm Program
- 1000 N.E. 10th Street
- Oklahoma City, OK (Oklahoma) 73117-1299
- Phone: (405) 271-5243
- Fax: (405) 271-5286
- www.health.state.ok.us (<http://www.health.state.ok.us/cib/index.html>)

Oregon**License Types**

- Restricted Energy Technician
- Ltd. Journeyman Limited Energy Electrician

Application Process

Download an [application](http://www.oregonbcd.org/pdf/2570a.pdf) (<http://www.oregonbcd.org/pdf/2570a.pdf>)

Fees

- Application fee: \$10.00

Department of Consumer & Business Services (<http://licenseinfo.oregon.gov/>)

- Building Codes Division

- 1535 Edgewater St. NW, P.O. Box 14470
- Salem, OR (Oregon) 97309-0404
- Phone: (503) 378-4133
- E-mail: BCD.Webmaster@state.or.us (<mailto:BCD.Webmaster@state.or.us>)
- licenseinfo.oregon.gov (<http://licenseinfo.oregon.gov>)

Pennsylvania

There is no State Level low voltage electrical licensing. All electrical and alarm licensing requirements are regulated at the local level.

Rhode Island

License Types

- Master Alarm Electrician
- Journeyman Alarm Electrician
- Telecommunication System Contractor
- Telecommunications System Technician
- Telecommunication System Limited Installer
- Telecommunication Apprentice

Application Process

Download the appropriate [applications](http://www.dlt.ri.gov/profregs/apps.htm) (<http://www.dlt.ri.gov/profregs/apps.htm>)

Fees

- Master Alarm Electrician License Fee: \$75.00
- Master Alarm Electrician Renewal Fee: \$120.00
- Journeyman Alarm Electrician License Fee: \$75.00
- Journeyman Alarm Electrician Renewal Fee: \$36.00
- Telecommunication System Contractor Annual License Fee: \$120.00
- Telecommunication System Technician Annual License Fee: \$72.00
- Telecommunication System Limited Installer Annual License Fee: \$36.00
- Telecommunication Apprentice Annual License Fee: \$24.00
- Telecommunication System Application/Test Fees:
 1. Data: \$36.00
 2. Sound: \$36.00
 3. Telephony: \$36.00
 4. Video: \$36.00
- [Department of Labor and Training](http://www.dlt.state.ri.us) (<http://www.dlt.state.ri.us>)
- Division of Professional Regulation
- 1511 Pontiac Ave., Building 70
- P.O. Box 20247
- Cranston, RI (Rhode Island) 02920-0943
- Phone: (401) 462-8580

- Fax: (401) 462-8528
- TDD: (401) 462-8006
- www.dlt.state.ri.us (<http://www.dlt.state.ri.us>)

South Carolina

License Types

- Burglar and Fire Alarm Business
- Burglar Alarm Contractor

Application Process

Download [forms and information \(http://www.llr.state.sc.us/POL/Contractors/index.asp?file=PUB.htm\)](http://www.llr.state.sc.us/POL/Contractors/index.asp?file=PUB.htm)

- Department of Labor, Licensing and Regulation
- Contractors Licensing Board
- Synergy Business Park
- Kingstree Building
- 110 Centerview Drive
- Compliance Suite 102
- Licensing Suite 201
- Columbia, SC (South Carolina) 29210
- www.llr.state.sc.us/ (<http://www.llr.state.sc.us/>)
- www.llr.state.sc.us/POL/Contractors/ (<http://www.llr.state.sc.us/POL/Contractors/>)

Mailing address

- P.O. Box 11329
- Columbia, SC
- 29211-1329

License Types

- Fire Alarm Contractor

Application Process

Download [forms and information \(http://www.llr.state.sc.us/POL/Contractors/index.asp?file=PUB.htm\)](http://www.llr.state.sc.us/POL/Contractors/index.asp?file=PUB.htm)

Fees

Contact Board for information about fees.

- Board of Professional Engineers and Land Surveyors
- Synergy Business Park
- Kingstree Building
- 110 Centerview Dr., Suite 201
- Columbia, SC (South Carolina) 29210
- Jan Simpson/Administrator
- engls@llr.sc.gov (<mailto:engls@llr.sc.gov>)

Mailing address

- P.O. Box 11597
- Columbia, SC 29211-1597
- Phone: (803) 896-4422
- Fax: (803) 896-4427
- www.llr.state.sc.us (<http://www.llr.state.sc.us/POL/Engineers/>)

License Types

- Specialty Contractor
Electrician Classification

Application Process

Download application PDF (<http://www.llr.state.sc.us/POL/ResidentialBuilders/PDF%20files/SpecAppl.PDF>)

Fees

Contact The Commission for information about fees.

Fees

Contact Board for information about fees.

- [Residential Builders Commission](http://www.llr.state.sc.us/POL/ResidentialBuilders/) (<http://www.llr.state.sc.us/POL/ResidentialBuilders/>)
- Synergy Business Park
- Kingstree Building
- 110 Centerview Dr., Suite 306
- Columbia, SC (South Carolina) 29210
- Phone: (803) 896-4696
- Fax: (803) 896-4656
- www.llr.state.sc.us/POL/ResidentialBuilders/ (<http://www.llr.state.sc.us/POL/ResidentialBuilders/>)

South Dakota

While all persons engaging in any kind of electrical work must be licensed by the state of South Dakota; there is no specific specialty licensing set aside for low voltage or alarm work. All electrical work (including low voltage) is covered under the following licensing's:

- Electrical Contractor
- Journeyman Electrician
- Class B Electrician
- State Electrical Commission
- Ron Nagle, Executive Director
- 308 S. Pierre St.
- Pierre, SD (South Dakota) 57501
- Phone: (800) 233-7765
- Fax: (605) 773-6213

- www.state.sd.us (<http://www.state.sd.us>)
- www.state.sd.us/dol/boards/electrical/ (<http://www.state.sd.us/dol/boards/electrical/>)

Tennessee

License Types

- Low Voltage
Less than 70 volts
 - Sound
 - Intercom
 - Fire detection
 - Alarm systems
 - Telephone lines and cabling

Application Process

Low Voltage work (Less than 70 volts) does not require an exam for application, but, must register with the Alarm Contractors Board as well. Download the application
(<http://tennessee.gov/commerce/boards/contractors/pdf/contLicenseApp.pdf>).

Information about the necessary steps for obtaining a license
(<http://tennessee.gov/commerce/boards/contractors/step1.html>)

Fees

Application: \$150.00

This is a non-refundable fee, due to the board upon completion of the application.

- Department of Commerce & Insurance (<http://www.state.tn.us/commerce/boards/contractors/index.html>)
- Tennessee Board of Licensing Contractors
- 500 James Robertson Pkwy
- Davy Crockett Tower
- Nashville, TN (Tennessee) 37243-0565
- Phone: (615) 741-2241
- www.state.tn.us (<http://www.state.tn.us/commerce/boards/contractors/index.html>)

License Types

- Alarm Contractor Company
- Alarm Systems Contractor Qualifying Agent
This is for specific classification: Fire, Burglar, CCTV, Monitoring
- Alarm Contractor Registered Employee

Application Process

Employing company must register employees in accordance with the law within 30 days of employment. Each applicant must submit:

- A signed, notarized application along with the appropriate non-refundable application fee of \$80.00.
- Three completed fingerprint cards issued by this office.

- The required \$48.00 fee.
- Two 1" x 1" color passport-style photos with the name of the applicant printed on the back of each.
- Be at least 18 years of age
- Be of good moral character.

Application & Fees

Contact the Board office to request applications or to obtain more detailed information about fees and procedures.

- **Department of Commerce and Insurance** (<http://tennessee.gov/commerce/boards/sil/asc/registeredemp.html>)
- Alarm Systems Contractors Board
- 500 James Robertson Pkwy
- 2nd floor
- Nashville, TN (Tennessee) 37243-1167
- Phone: (615) 741-9771
- Fax: (615) 532-2965
- tennessee.gov (<http://tennessee.gov/commerce/boards/sil/asc/registeredemp.html>)

Texas

License Types

- Fire Alarm Technician
- Fire Alarm Monitoring Technician
- Residential Fire Alarm Superintendent-Single Station
- Residential Fire Alarm Superintendent
- Fire Alarm Planning Superintendent

Application Process

Download **Fire Alarm License applications** (<http://www.tdi.state.tx.us/fire/fmlialarm.html>) and other necessary forms and information

Fees

- Fire Alarm Technician: \$120.00
- Fire Alarm Monitoring Technician: \$120.00
- Residential Fire Alarm Superintendent-Single Station: \$120.00
- Residential Fire Alarm Superintendent: \$120.00
- Fire Alarm Planning Superintendent: \$120.00
- **Texas Department of Insurance** (<http://www.tdi.state.tx.us>)
- State Fire Marshal's Office
- 333 Guadalupe
- Austin, TX (Texas) 78714-9221
- P.O. Box 149221
- Phone: (512) 305-7900
- Fax: (512) 305-7922

- www.tdi.state.tx.us (<http://www.tdi.state.tx.us>)

License Types

- Alarm Systems Installer
- Alarm Systems Monitor

Application Process

Contact the Private Security Bureau at the above number to request an application.

Application & Fees

Contact the Bureau for fee information.

- **Texas Department of Public Safety** (<http://www.txdps.state.tx.us/psb/>)
- Private Security Bureau
- P.O. Box 4087
- Austin, TX (Texas) 78773-0001
- Phone: (512) 424-7710
- www.txdps.state.tx.us (<http://www.txdps.state.tx.us/psb/>)

Utah

License Types

- Burglar Alarm Company
- Burglar Alarm Company Agent
- Burglar Alarm Company Qualifier
- Temporary Burglar Alarm Company Agent

Application Process

Download [applications and other necessary forms](http://www.dopl.utah.gov/licensing/burglar_alarm_sub_page.html)
(http://www.dopl.utah.gov/licensing/burglar_alarm_sub_page.html)

Fees

Contact the Board for fee information.

- **Utah Division of Occupational and Professional Licensing** (http://www.dopl.utah.gov/licensing/burglar_alarm.html)
- Burglar Alarm Board
- 160 East 300 South
- Salt Lake City, UT (Utah)
- Phone: (801) 530-6628
- Toll free (in Utah): (866) 275-3675
- Fax: (801) 530-6511
- www.dopl.utah.gov (http://www.dopl.utah.gov/licensing/burglar_alarm.html)

Vermont

License Types

- Type-S journeyman license

- Type-S classifications include
 - Household fire detection
 - Commercial fire alarm system

Application Process

Information and instructions regarding the application process for licensure/examination (<http://www.dps.state.vt.us/fire/licensing/electructcoverltr2.htm>)

Fees

Type-S Journeyman application fee: \$90.00 per field.

- **State Electricians Licensing Board** (<http://www.dps.state.vt.us/fire/licensing/Electrical.htm>)
- Department of Labor and Industry
- National Life Bldg., Drawer 20
- Montpelier, VT (Vermont) 05620-3401
- Phone: (802) 828-2107
- www.dps.state.vt.us (<http://www.dps.state.vt.us/fire/licensing/Electrical.htm>)

Virginia

License Types

"Electrical Contractors" in the State of Virginia means those individuals whose contracts include the construction, repair, maintenance, alteration or removal of electrical systems under the National Electrical Code. This classification provides for all work covered by the National Electrical Code including electrical work covered by the alarm/security systems contracting, electronic/communication service contracting and fire alarm systems contracting specialties. A firm holding an electrical license is responsible for meeting all applicable tradesman licensing standards.

- Journeyman
- Master

Application Process

Download all applications and necessary forms (http://www.state.va.us/dpor/tra_form.htm)

Fees

Contact the Board for Contractors/Tradesmen for fee information.

- **Department of Professional and Occupational Regulation** (<http://www.dpor.virginia.gov>)
- Board for Contractors, Tradesmen
- 3600 West Broad Street
- Richmond, VA (Virginia) 23230
- Phone: (804) 367-8500
- Fax: (804) 367-2475
- E-mail: dpor@dpor.virginia.gov (<mailto:dpor@dpor.virginia.gov>)
- www.dpor.virginia.gov (<http://www.dpor.virginia.gov>)

Washington

License Types

- Telecommunications Contractor's License

- Administrator
Electrical or Telecommunication Contractors must designate an administrator who must ensure that all work is in compliance with the laws and rules.

Application Process

For more information about applying for a Telecommunications Contractor License and to apply online (<http://www.ini.wa.gov/TradesLicensing/Electrical/LicenseExamEd/LicenseCert/TeleReq/default.asp>).

Fees

Total fees are \$267.90. Must be paid by credit card (Visa/MC) Fees are nonrefundable after license has been issued.

- Washington State Department of Labor and Industries
- Electrical Section
- Chief Electrical Inspector: (360) 902-5249
- Fax: (360) 902-5229

Licensing and General Information (<http://www.ini.wa.gov/TradesLicensing/Electrical/default.asp>)

- General Info: (360) 902-5249
- Fax: (360) 902-5296
- Supervisor: (360) 902-6278
- www.ini.wa.gov (<http://www.ini.wa.gov/TradesLicensing/Electrical/default.asp>)

West Virginia**License Types**

Specialty Electrician with a classification in:

- Fire/Burglar Alarm (low voltage)

Application Process

Download an application (<http://www.wvfiremarshal.org/pdf/jan2005pdf/ELECTRICIANAPP05.pdf>)

Fees

- Exam Fee: \$25.00
- License Fee: \$50.00
- **State Fire Marshal** (<http://www.wvfiremarshal.org>)
- 1207 Quarrier St., 2nd Floor
- Charleston, WV (West Virginia) 25301
- Phone: (304) 558-2191
- Fax: (304) 558-2537
- www.wvfiremarshal.org (<http://www.wvfiremarshal.org>)

Wisconsin

While electrical licensing is handled at the state level, at this time there does not appear to be any specific low voltage or specialty electrical licensing.

Wyoming**License Types**

- Limited/Low Voltage Technician
- Limited/Low Voltage Contractor
- Limited/Low Voltage Apprentice Technician

All these license types can cover any of the following categories of work:

- Low Voltage General
- Low Voltage Alarms
- Low Voltage Communications
- Low Voltage Sound
- Low Voltage Television
- Low Voltage Controls

Application Process

Download all necessary forms and applications (http://wyofire.state.wy.us/prevention/license_fees.asp)

Fees

- Application for Limited/Low Voltage Technician: \$100.00
- Application for Limited/Low Voltage Contractor: \$200.00
- Application for Limited/ Low Voltage Apprentice Technician: \$20.00
- Renewal for Limited/Low Voltage Technician: \$50.00/yr
- Renewal for Limited/Low Voltage Contractor: \$200.00/yr
- Renewal for Limited/Low Voltage Apprentice Technician: \$20.00/yr
- **Department of Fire Prevention & Electrical Safety** (<http://Wyofire.state.wy.us>)
- Herschier Building 1W
- Cheyenne, WY (Wyoming) 82002
- Phone: (307) 777-7993
- Fax: (307) 777-7119
- **wyofire.state.wy.us** (<http://Wyofire.state.wy.us>)

3 Bethesda Metro Center, Suite 1100 Bethesda, MD (Maryland) 20814 Phone: (301) 657-3110 (tel:+13016573110) Fax: (301) 215-4500 Contact NECA Webmaster (/helpdesk/)

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Testimony Before the Senate Industry, Business and Labor Committee
On SB 2350

Mr. Chairman, Members of the Committee. My name is Scott Porsborg and I am the Special Assistant Attorney General for the North Dakota State Electrical Board.

SB 2350 adds an additional exception to when electrical work can be performed in the State without an electrical license.

N.D.C.C. § 43-09-16 currently has four exceptions to when a license is required. A review of those exceptions shows they are quite narrow and limited.

The first is for employees of public utilities working on generation and distribution. The shorthand for this exception often utilized is the utility is responsible for everything on their side of the meter, but after that power to the home or business has to be installed by an electrician.

Number 2 is for employees of telephone or radio systems, very low voltage electrical apparatus that don't generally pose a significant danger.

Number 3 exempts employees of dealers of household appliances with a single hookup to an existing receptacle. Again, the electricians will tell you this is a low-risk activity.

Number 4 exempts representatives of a manufacturing firm installing or modifying controls on industrial machinery, and in order to qualify, the work has to be performed under the direction of a registered professional engineer.

The reason these exceptions are so narrow is public safety.

The proposed amendment contained in SB 2350 is not so limited. It allows for all work on systems less than 50 volts to be done possibly, depending on how the bill is interpreted, by anyone, anywhere.

I will let the board's technical staff and electricians speak to the life and safety issues affected by the bill. But I can speak to interpretational concerns, and there are several. It appears the intent of the bill may be to allow a commercial or industrial business to have its employees do fifty-volt wiring solely at its place

or places of business. But there are two wiggle words in the bill that may expand the effect beyond that intent.

The first is “representative of a company.” This term could be read to include subcontractor, and if that is the case, then any company, whether or not it has its own trained employees, can hire anyone to wire their facilities if it’s less than 50 volts.

The second term is “facility.” Fire alarm and automatic suppression systems, for example, are less than 50 volt systems. We believe as the bill is written, the owner of an apartment building could have an employee or subcontractor of the owner who is not an electrician wire those systems. Does it include places of assembly, churches, public buildings, schools, dormitories, hospitals, nursing homes? Now, in all of those facilities, the work this bill is exempting is performed by licensed electricians, and they are all inspected by board inspectors for safety.

We will hear these legal arguments and others like them from companies seeking to cut their costs by having less qualified individuals work on their buildings. This bill appears to be intended to state, effectively, “if an industrial company wants to wire its own facilities and accept the additional risk, they should be able to do so.” But the bill as written goes much further than that. The public policy sought to be advanced here is unclear.

Essentially, if passed, SB 2350 would delete the requirement of having electrician involvement in any electrical system less than 50 volts. That is a sea change in North Dakota. We have numerous administrative rules detailing standards for low voltage systems. Other states, like Minnesota, have specific low voltage licensing. They maintain control over that work, because it is important. This bill would remove any control over that work in North Dakota. I therefore urge a Do Not Pass recommendation on SB 2350.

2/2/15

#3

Testimony against Senate Bill No. 2350

By Josh Wilson, North Dakota State Electrical Board Inspector District 1

Mr. Chairman, members of the committee:

I am Josh Wilson and have worked for the North Dakota State Electrical board as an electrical inspector in Cass County for the last 9 years. It has come to my attention that this bill (senate bill #2350) has been introduced to change the requirements of a license being required to do electrical work when the voltage does not exceed 50 volts. I am against this proposal as it would be a hazard to the safety of the citizens of the state of ND and a hazard to personal and/or private property.

"The purpose of the NDSEB and myself is the practical safeguarding of persons and of buildings and building contents from electrical hazards arising from the use or control of electricity for light, heat, power, and the control thereof and of the fire detection system." ND Standards 24-02-01-02 #5

In my experience most people think that electricity below 50 volts is not dangerous. That is simply not true.

Example 1: There is a manufacturing facility in my district that uses 4-20 milliamp circuits (below 50 volt) for measuring and controlling their processes. This sounds harmless. But it is installed and used in a facility that uses hexane, which is extremely explosive. Therefore there are several codes that have been put into place regarding sealing off conduits, the use of intrinsically safe circuits, etc. Not only does the wiring need to meet the code standards, so does the equipment being installed. Any voltage can cause a spark which in turn could ignite the flammable chemicals or compounds. That is why there are requirements for the wiring and equipment installed in these classified areas.

Example 2: Many farms have grain bin sites that use low voltage systems to detect bin levels, to turn motors on and off, and to control other processes on the site. Many of these components are installed inside or near the bins where they are subject to the grain dust. Again, this is a potential hazard for an explosion or fire hazard.

Example 3: Gas stations use low voltage circuits for measuring, reporting, and transmitting to the store. Again, there are codes in place to help ensure a safe installation when these processes are used. This could be a very dangerous situation to the general public as numerous vehicles can fill gas simultaneously.

Example 4: Fire Alarms are a vital part of safety for people. Most fire alarm installations installed in a commercial or industrial setting are low voltage. It is very important that the fire alarm functions properly to notify people and the fire department. Another concern for fire alarm systems is we want them to function as long as possible before the fire or smoke could disable them. Also, fire alarms installed in schools, hospitals, churches, etc. have door holders that allow doors to close when an alarm happens. The purpose of this is if there is a fire, the "fire" rated doors close slowing the spread of fire and smoke to the other areas of the school or building.

Example 5: Low voltage wiring is used for the control of thermostats and furnaces. It is vital that furnaces function properly especially in the winter; if the furnace fails it could cause waterlines in the building to freeze and burst. Waterlines installed in the ceiling of many commercial buildings are susceptible to this.

In summation, because it is 50 volts or below does not mean that it is safe or not dangerous. Sometimes the lower the voltage the more dangerous it can be because people are not afraid of or don't respect it. Any voltage can cause a spark which could ignite a combustible gas, dust, or material and cause an explosion or fire. There are codes and standards put into place to minimize the potential hazards arising from the use of electricity, even the low voltage power. Low voltage power is frequently used to control vital processes, fire alarms, and heating and cooling systems. It is my belief that this bill would increase the dangers associated with low voltage wiring and could cause harm to persons and property.

I would like to thank the committee for taking the time to hear my concerns. If anyone has any questions I will do my best to answer them.

2/2/15
SB2350 #4

Good Morning,

My name is Al Schrader, District 9 electrical inspector for the ND State Electrical Board. The counties I cover are Mountrail, Burke and Divide which all have significant oil field related work in them.

- 1). This law change would exempt any inspection pertaining to voltage 50 V and under.
- 2). The state of North Dakota State Electrical Board would not have any jurisdiction over installations 50 V and less, period.
- 3). The State Electrical Board standards say the we must inspect all wiring relating to light, heat, power, and control thereof including fire alarms.
- 4). In this modern world we have computers shutting down any problems with level indicators in tanks, treaters, and shut off valves. These are called programmable logic controllers or PLC. Under this bill, the PLC connection or any other low voltage controls would not be inspected as they are now. With today's technology, flow sensors, gas monitors, and anything designed to prevent a catastrophic event and tell the process system to shut down, would be exempt from inspection. This includes 480 V and 2,200 V motors and other motors that move the product.
- 5). This new law if passed would create chaos in enforcing code.
- 6). Because the NDSEB is responsible to ensure life, safety, and equipment from poor installations for the protection of the public this bill is wrong.

Thanks Al Schrader, State Electrical Inspector District 9.

Testimony against Senate bill 2350 low voltage

Good morning, my name is Richard Wolfe; I have been in the electrical trade for 38 years, almost 16 of those employed thru the N.D. state electrical board. I am currently an electrical inspector for the state

North Dakota adopts the National Electrical Code thru NFPA, article 90.1 (a) states "The purpose of this code is the practical safeguarding of persons and property from hazards arising from the use of electricity". During my employment this has also been a priority of my job, not only thru code enforcement, education seminars and continuing education but also working with contractors in the field. North Dakota has always been a leader and role model for other states to assure that when electrical work is done it is thru electrical contracting masters that are properly licensed, insured and bonded.

Article 550.1 in our code covers installations in all hazardous locations. It states "covers the requirements for all electrical and electronic equipment and wiring for all voltages in classified locations" there is no voltage limitations for low voltage, either ac or dc.

There are numerous installations that have low voltage systems that we currently inspect. For example schools that goes to automated heated and cooling systems, health care, places of assembly, oil fields, refineries, gas plants and hospitals. We verify piping, wiring method, cables rated for plenum areas and that the installation methods meet the N.E.C. for areas in which they are installed.

If I represent a company that has a low voltage job to work in your facility, would I no longer need to be licensed or follow any guidelines if this bill is passed? If we look around this room and the fire alarm or another system meets the non-licensing requirements of this bill but does not meet code for type of installation, wiring methods used and proper support of cables or piping, who is the governing body? What recourse would the consumer have to fix the problems?

I am in opposition to this bill due to safety, installation requirements, and especially in areas with high risk such as hazardous areas. I have never based my judgment because there may be less of an electrical hazard. To me that is like saying "I don't have to be licensed as a dentist just to pull teeth, I'm not doing dental work, just pulling teeth"

Thank you

#6

Testimony on SB 2350
Bill Kalanek
National Electrical Contractors Association, Dakotas Chapter
Senate Political Subdivisions Committee
February 2, 2015

Good Morning Chairman Klein and members of the Senate Industry Business & Labor Committee, my name is Bill Kalanek, here today representing the members of the Dakotas Chapter of the National Electrical Contractors Association.

On behalf of our contractor members I'd like to voice our opposition to Senate Bill 2350 which creates an additional exception in the law excluding work that should require an electrician. It is the opinion of the association that the proposed change although seemingly insignificant, creates additional risk for employers and is a safety issue for employees and the public.

The proponents of the bill I believe are acting with the best of intentions. The fact of the matter is that a "low voltage" exception is a bit misleading. Even a system operating at 50 volts gets its power from somewhere. That power comes from 110v, 220v or 480v sources, all require a licensed electrician, and 50 volts is still enough voltage to end a life.

For these reasons I would ask the committee in its wisdom give SB 2350 a "Do Not Pass" recommendation and leave the current rules in place to protect the interests of employers, employees, and the public. In this instance, safety is the most important thing to consider.

Thank you.

/

Mr. Chairman and members of the Committee:

My name is Mitch Feininger. I am from Dickinson, North Dakota. I am against this SB 2350. I am a member of the National Fire Protection Agency's Code Making Panel 14, which covers hazardous locations. This panel covers installations in the oilfield, grain elevators, and ethanol plants, which are all common here in North Dakota. I am fortunate enough to have a hand in the decision-making process of editing what is written in the National Electrical Code. I have been employed as an electrical inspector for the North Dakota State Electrical Board for the past decade. I perform electrical inspections in the heart of the oil boom in McKenzie County, which is in the Watford City area. In that time, I have seen a shift from local electricians performing installations to installers coming from all over the United States and beyond.

It never ceases to amaze me how installers complement us on our knowledge and expertise of their installation. This is because we have a true presence and we are out there working with them to ensure safe and code-compliant installations. North Dakota is truly a "diamond in the rough". We do not succumb to entities who pander to ideas that just don't make sense, such as permitting installations of 50v or less to be performed without inspection or licensing. We go out there every day with a "boots on the ground" mentality to ensure the safety of our citizens.

This bill is not consistent with the values of our great state and should not pass.

Mitch Feininger

District 3 Electrical Inspector

Code violations

1. PROVIDE PHYSICAL PROTECTION FOR MC CABLE AND ALSO ABB CABLE FROM 18" BELOW GRADE TO ENCLOSURE WHERE IT IS TERMINATED AS PER NEC 300.5D1.
2. PROVIDE DOCUMENTATION TO STATE THAT ABB CABLE IS SUITABLE FOR DIRECT BURIAL AND EXPOSED USE WITHOUT ADDITIONAL PROTECTION SUCH AS CONDUIT OR CABLE TRAY AND THAT IT IS LISTED BY A NRTL SUCH AS UL
3. PROVIDE CABLE SEALS AT TERMINATIONS FOR TANK LEVEL MONITORS ON TANKS PER NEC 504.70 AND 501.15D3
4. PROVIDE PROPER SUPPORT OF "C" CONDULET USED TO SPLICE FLOAT CONDUCTORS ON TOP OF TANKS
5. INSTALL ABB SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS (GROUNDING APPEARS TO BE NOT IN COMPLIANCE)
6. PROVIDE PROPER BEND RADUIS FOR MC CABLE (NOT MORE THAN 7 TIMES THE DIAMETER)
7. INSTALL CABLE TRAY OR RACEWAY SYSTEM FOR MC AND ABB CABLES FEEDING INSTRUMENTS IN TREATER BUILDING AND ON CATWALK AS PER NEC 300.5D1

***Code violations shown in the attached photos

TYPICAL LOCATION OF TANK MONITOR ON A TANK BATTERY

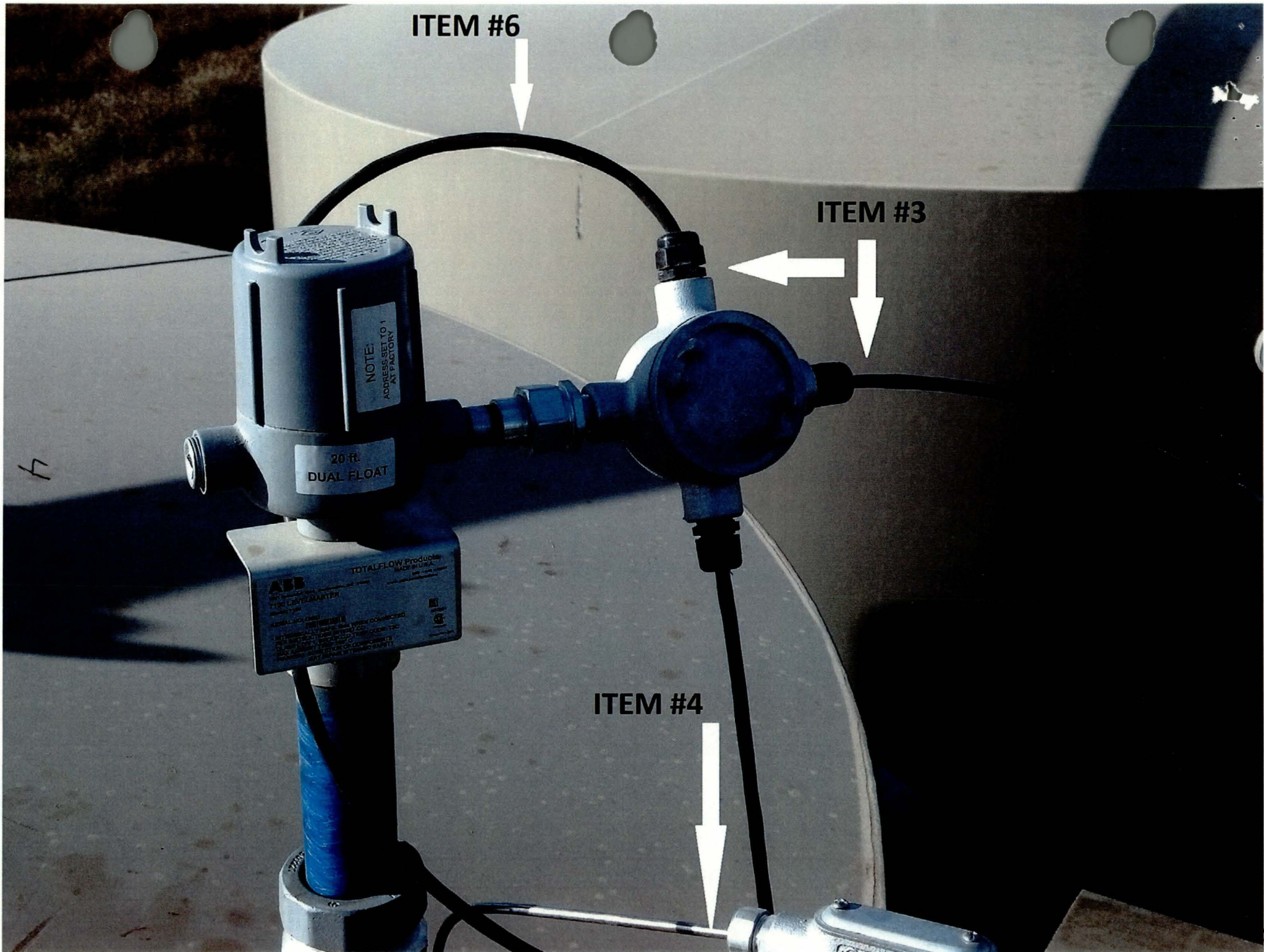


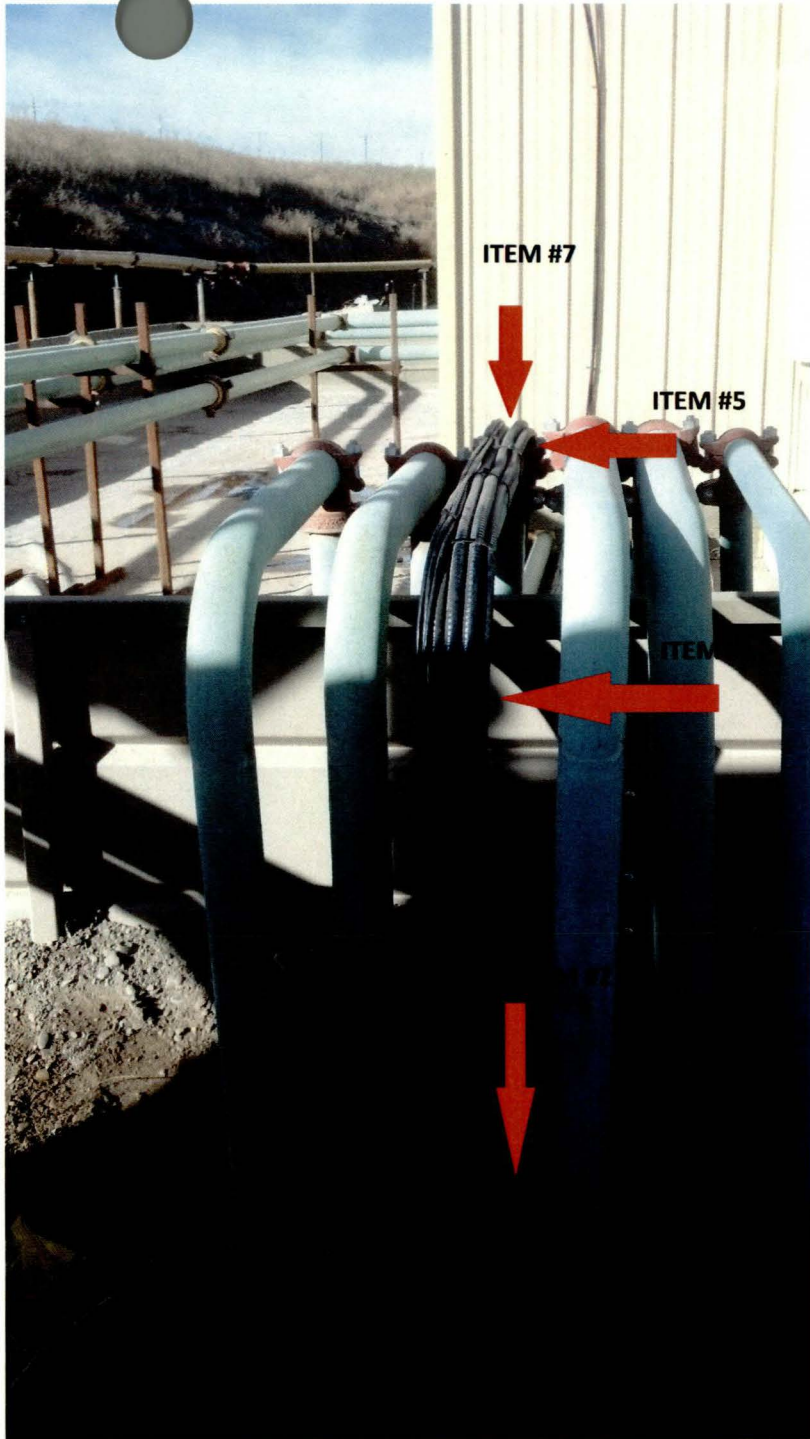
TYPICAL OIL FIELD WELL SITE

ITEM #6

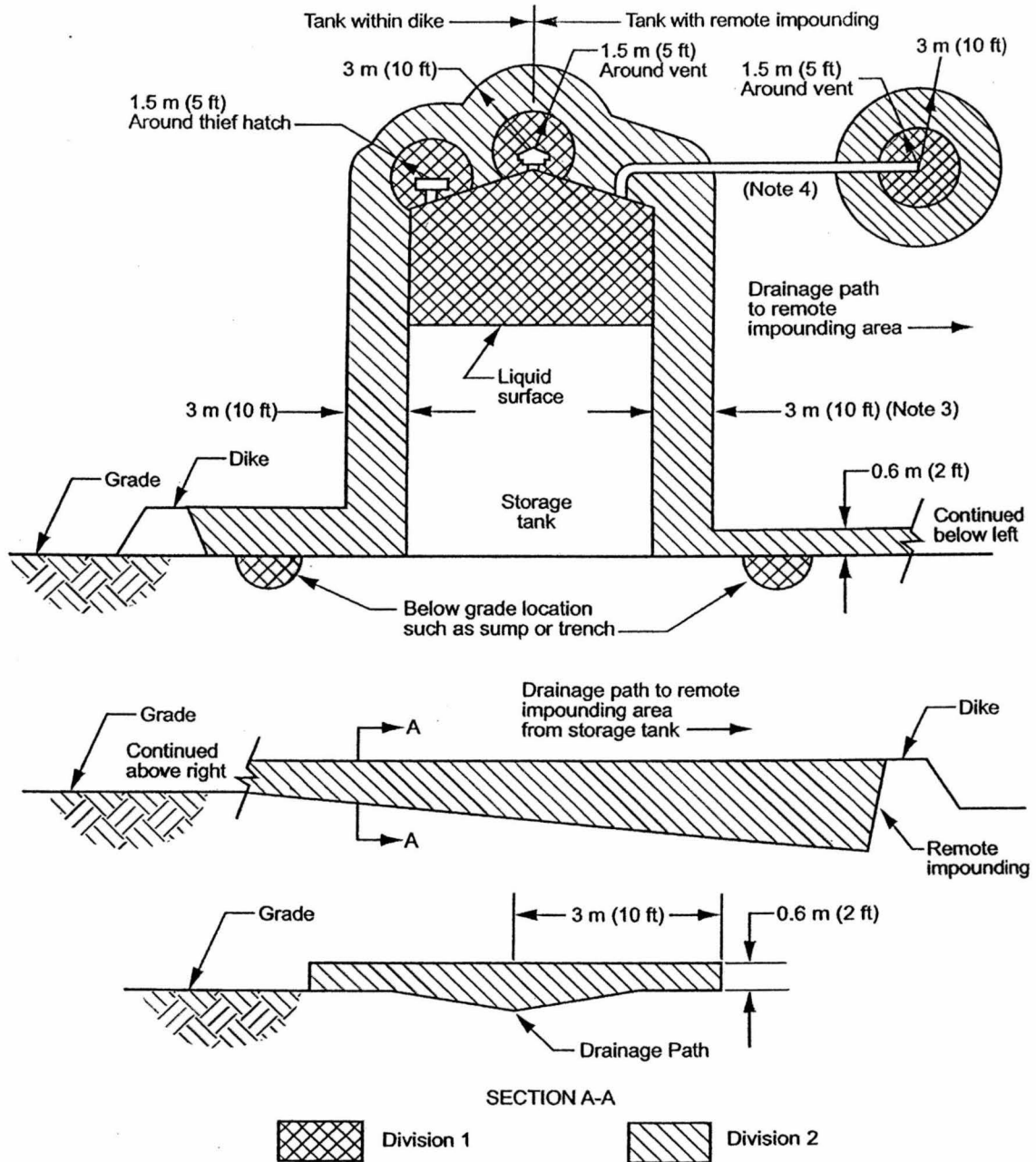
ITEM #3

ITEM #4





5



- NOTE 1 High filling rates or blending operations involving Class 1 flammable liquids may require extending the boundaries of classified areas.
- NOTE 2 Distances given are for typical petroleum facilities: they must be used with judgement, with consideration given to all factors discussed in the text.
- NOTE 3 If there is no dyke or no remote impounding, the Division 2 area only extends 3 meters (10 feet) horizontal distance from the tank shell.
- NOTE 4 The interior of the vent piping is Division 1. Cross hatching has been omitted for drawing clarity.

Figure 6—Fixed Roof Flammable Liquid Storage Tank in a Nonenclosed Adequately Ventilated Area (See 8.2.1.2)

2/2/15

#8

Testimony Against SB 2350

Presented by Lyle Wergeland

Director of Inspections, North Dakota Electrical Board

Mr. Chairman and Members of the Committee:

I am here to speak to you about Senate Bill 2350. I started my electrical career in 1973, since that time I have worked on every kind of electrical project imaginable, except for power plants. I was also an electrical contractor for nineteen years. I have only been working for the State Electrical Board for six and a half years, but I believe I was hired because of my experience and my concern for electrical safety.

The ND Laws Rules and Wiring Standards address the mission of the North Dakota State Electrical Board as follows: "Purpose and scope. The purpose of these standards is the practical safeguarding of persons and of buildings and building contents from electrical hazards arising from the use or control of electricity for light, heat, power, and control thereof and of the fire detection system."

North Dakota State Electrical Board adopts/enforces the current National Electrical Code (NEC) written by the code making panels of the National Fire Protection Association (NFPA). Article (725) of the NEC specifically addresses the voltage systems addressed by this bill. NEC Articles 500.1, 501.1, 502.1, 503.1, which all deal with hazardous locations, stipulate "regardless of voltage". Hazardous locations are areas that do or are likely to contain flammable or combustible concentrations of gases, vapors, dusts, fibers or filings. SB 2350 would allow circuits of less than fifty volts in hazardous locations to be wired in any wiring method, using any device or equipment without regard to spark containment, physical protection of the wiring method, transmission of gases and vapors, or limiting current. These hazardous locations would include oil field site, grain handling facilities, gas stations or convenience stores, body shops, repair garages, or bulk fuel storage facilities. Other facilities that electrical safety would be compromised would be in schools, hospitals, nursing homes, motels, dormitories, swimming pools.

SB 2350 would essentially eliminate our ability to protect the public and property owners from all of the hazards arising from the use of electricity. Once licensing and inspection is not required for installations of less than fifty volts, the insurance industry might also be interested in what is proposed by SB 2350.

Our own ND Laws Rules and Wiring Standards address fire alarms, which typically operate at less than fifty volts. You will find fire alarms anywhere children spend the day being educated (schools), where those students sleep (dormitories), where people pay for a sleeping room (motels), where people receive health care (hospitals), where people live in multi-family dwellings (apartments), or where people gather to worship or socialize (churches, clubs, civic arenas).

With all of the examples of given, do we really want to give up licensing and inspections for these locations because of voltage? I don't think we should. One of the functions of government is to propagate rules to protect the public from known hazards. We would be taking a huge step backwards in that regard if SB 2350 is passed.

Mr Chairman and Committee Members, this concludes my testimony. I would be more than happy to address any questions you would have.

2/2/15

#9

TESTIMONY AGAINST HB 2350

PRESENTED BY JAMES SCHMIDT

EXECUTIVE DIRECTOR, NORTH DAKOTA STATE ELECTRICAL BOARD

Mr. Chairman, Members of the Committee:

HB 2350 was introduced without the knowledge of the North Dakota State Electrical Board, and we have not had significant time to study it or confer with its sponsors. This bill is interesting as 2 ½ weeks ago we had 2 representatives from a company in our office insisting their employees could do some of low voltage wiring on an oil well site. Lyle and I reviewed the ND laws and rules with them so the answer they received was not favorable to them. We believe this bill was a response to that discussion.

If passed SB 2350 this would take away the NDSEB's administrative rule requirements of licensure for and inspections of fire alarms systems as their operating system is under 50 volts. I do not think this is good policy to allow this. This rule is in place for public safety and I do not believe it should be taken away.

Every 3 years the North Dakota State Electrical Board reviews, takes public comments on and adopts the revised or updated edition of the current National Electrical Code and the ND State Wiring Standards. These are the rules that our office uses ensure the safeguarding of the residents of North Dakota's buildings and building contents from electrical hazards arising from the use or control of electricity for light, heat, power, and control thereof and of the fire detection system. We therefore urge a do not pass vote on SB 2350.

We thank the Committee for hearing our concerns and I would be happy to answer any questions the committee may have.

Testimony against Senate bill 2350

Mr./Mrs chairman members of the committee.

My name is Kendrick Kjorsvik, District inspector for the North Dakota Electrical Board.

Senate bill 2350 affects the lives and safety of everyone in the state. This bill would open the door to unlicensed persons, unqualified personnel and unlicensed companies to begin wiring in the state without inspections. The hazards of electricity are, just to name a few, fire, bodily injury and death.

Speaking from experience finding unlicensed personnel installing low voltage wiring. Those installations did not meet minimum standards in materials used or methods of installation in the classified areas. Those particular installations were on oil sites, where the potential for explosions, fires to occur due to a spark go without saying.

Some of what I found while inspecting oil field related projects with low voltage systems. Seal offs not poured, sealing fittings not used, improper support of cables, wire, raceway, cable trays, no cable tray bonding or grounding, . The installation of materials that were not listed or not listed for the use in classified areas, those include wire, cable, junction boxes, raceway, raceway fittings, sealing fittings, devices, gauges, level sensors, control panels. I found these code violations in Class 1 Division 1 & Division 2 areas at LACT buildings, salt water injection facilities, compressor stations, rail load out facilities, gas plant, booster pump stations, tank farms, oil well sites.

Low voltage wiring is not limited to oil field work. Just about every electrical installation out there has some form of low voltage wiring installed, even your own homes. Factories, plants, grain elevators, commercial repair garages, gas stations, malls, schools, churches, health care facilities, nursing homes are just a few examples of places that would have low voltage wiring systems in them. Some of those types of facilities have dedicated code sections.

I would like to thank the members of the committee for your time.

2/9/15

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PROPOSED AMENDMENTS TO SENATE BILL NO. 2350

Page 2, replace lines 1-3 with "Companies involved in the exploration and production of oil and gas when engaged in electrical work on the operator's own specific equipment for which the supply voltage does not exceed 24 volts. These companies shall provide proper safety training and equipment specific electrical training for their particular applications"