



April 19, 2021

Chairman Calvin Schrage  
Alaska House of Representatives Energy Committee  
State Capitol Room 104  
Juneau AK, 99801  
[Representative.Calvin.Schrage@akleg.gov](mailto:Representative.Calvin.Schrage@akleg.gov)

**Re: Alaska House Bill 154:** An Act exempting certain low voltage projects from contractor and electrical administrator requirements.

Chairman Schrage,

Thank you for your interest in removing regulatory roadblocks for installation of low voltage projects. This is a topic that is of vital importance to providing broadband connectivity to Alaskans in their homes and businesses. Cisco Systems, a global technology company that develops, manufactures, and sells networking hardware, telecommunications equipment and technology services, generally supports House Bill 154. We ask for your consideration of an amendment to better align the bill with national standards for low voltage installations that, if added, would better enable essential broadband wiring in commercial installations.

Cisco is a global supporter of expanded access to broadband. Sensible permitting and licensure rules can accelerate these expansions. Communications systems operate using defined sets of rules specified both by international safety standards and the National Fire Protection Association's National Electrical Code (NEC). These rules are defined by Code Making Panels of hundreds of experts representing the interests of manufacturers, electricians, inspectors, and many other stakeholders in the electrical trade. Cisco strongly supports legislation which relies on these NEC definitions. As written, House Bill 154 departs from these national standards, by specifying a definition of low voltage of 56V or less.

Cisco recommends deletion of the existing definition that now appears at Sec. 08.18.161 (13) (B) and Sec. 08.40.190(b) (12) (B) and replacing them with a reference to Class 2 and Class 3 circuits as provided in NEC Article 725. The NEC Class 2 and Class 3 definitions are further subdivided into subcategories in Tables 11 A and B. Instead of identifying a simple voltage limit, these definitions focus on guidelines for systems which are safe by design from a shock and fire initiation perspective. They achieve this goal by limiting both the voltage and current, and thus limit the maximum exposure to energy in a fault condition for personnel and property. None of the defined sub-categories from Tables 11 A and B exceed 100 Watts, which is approximately the amount of power it takes to operate a single incandescent light bulb. Every one of these 18 subcategories has a use in government and industry, and each subcategory has been relied on by manufacturers across the country for decades. Why does the NEC go to this level of detail? To ensure the manufacturers are designing circuits that are so safe that no special training is required to install or maintain this subset of circuits.

One example of a safe Class 2 circuit is Power Over Ethernet (PoE). PoE is a critical component for modern IT equipment, and is essential to providing connectivity in schools, hospitals, businesses and in government offices.

For example, PoE connects Wi-Fi routers, video screens and security cameras to enterprise networks, to name a few applications.

Referencing the NEC code as the marker for low voltage wiring complements and enhances your efforts to eliminate unnecessary and costly regulatory requirements, as well as to ensure expeditious expansion of broadband access to Alaskans. HB 154 with the proposed amendment will no doubt provide a boost to this effort.

Please don't hesitate to contact me directly if you'd like to further discuss this topic.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jason Potterf', with a long horizontal flourish extending to the right.

Jason Potterf  
Cisco Engineering Consultant to Government Affairs  
National Electrical Code, Principal, Codemaking Panel 18  
Cisco  
[jpotterf@cisco.com](mailto:jpotterf@cisco.com)

## Suggested Amendment to Alaska House Bill 154

### Sec. 08.18.161 (13) (B)

(B) "low voltage" means ~~56 volts or less~~ Class 2, or Class 3 remote control, signaling, or power-limited circuits, fire alarm circuits, optical fiber cables, or communications circuits, including raceways, as defined by the National Electrical Code.

### Sec. 08.40.190(b) (12) (B)

(B) "low voltage" means ~~56 volts or less~~ Class 2, or Class 3 remote control, signaling, or power-limited circuits, fire alarm circuits, optical fiber cables, or communications circuits, including raceways, as defined by the National Electrical Code.

## References to Other State Laws with Similar Definitions / Exemptions

### Iowa

Iowa Code Chapter 103, ELECTRICIANS AND ELECTRICAL CONTRACTORS, 103.22 (11)

<https://www.legis.iowa.gov/DOCS/ACO/IC/LINC/Chapter.103.pdf>

### Missouri

Missouri Title XXII OCCUPATIONS AND PROFESSIONS, Chapter 324.915 (6)

<https://revisor.mo.gov/main/OneSection.aspx?section=324.915&bid=34572&hl=remote%u2044>

### Oklahoma

Oklahoma Electrical License Act, Section 1682 (B)

[https://cib.ok.gov/sites/g/files/gmc756/f/documents/2020/title\\_59\\_electrical\\_license\\_act.pdf](https://cib.ok.gov/sites/g/files/gmc756/f/documents/2020/title_59_electrical_license_act.pdf)

### Texas

Texas Electrical Safety and Licensing Act Sec. 1305.003. (a) (12)

<https://www.tdlr.texas.gov/electricians/eleclaw.htm#1305003>