

CONCISE EXPLANATORY STATEMENT

Chapter 296-46B WAC, Electrical Safety Standards, Administration, and Installation

Public Hearing: April 9, 2020

Adoption: May 19, 2020

Effective: July 1, 2020

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I. Purpose of Rulemaking

The purpose of this rulemaking is to adopt changes to the electrical rules in chapter 296-46B WAC, Electrical Safety Standards, Administration, and Installation. The program reviewed the existing rules and the 2020 National Electrical Code (NEC) (NFPA 70-2020) to amend the new safety codes, update and clarify existing rules, and make housekeeping and other rule changes.

A. Background

This rulemaking was initiated to make changes to the electrical rules for consistency with the 2020 National Electrical Code (NEC) (NFPA 70-2020), and to consider other rule changes necessary to improve public safety. The 2020 NEC (NFPA 70-2020) replaces the current 2017 NEC (NFPA 70-2017) standards, effective July 1, 2020. Washington's electrical stakeholders and other interested parties were invited to participate in the review of the existing rules, submit proposals for changes to the rules, and provide recommendations to the department on possible rule changes. The state's Electrical Board reviewed proposals and provided advice to the department on adoption of the rules.

B. Summary of the rulemaking activities

The Electrical Program's rulemaking process includes an opportunity for public proposals, review and recommendation of all proposals by a Technical Advisory Committee (TAC), review and recommendations by the state's Electrical Board, and the public hearing process. Washington's electrical stakeholders have the opportunity to review the rules and make recommendations to the department regarding adoption of the rules.

II. Changes to the Rules

There are no differences between the text of the proposed rules and adopted rules.

III. Comments on proposed rule

The purpose of this section is to respond to the oral and written comments received through the public comment period and at the public hearing.

A. Comment Period

The public comment period for this rulemaking began March 3, 2020, and ended April 16, 2020.

B. Public Hearing

A public hearing was held on April 9, 2020, at 10:00 a.m. by conference call only, due to the current COVID-19 outbreak and in-person gathering restrictions in place in Washington State. Five persons attended the public hearing by phone and one person provided testimony. The department received two written comments, which is included in subsection C. below.

C. Summary of Comments Received and Department Response

Below is a summary of the comments the department received and the department’s response.

General Comments	Department Response
<p>I am the Government Affairs Director for the Pool and Hot Tub Alliance.</p> <p>The Alliance was formed in 2019, combining the Association of Pool & Spa Professionals and the National Swimming Pool Foundation. PHTA represents more than 35 [sic] company members that range from swimming pool, hot tub, and spa manufacturers, distributors, manufacturers' agents, designers, builders, installers, suppliers, retail and service professionals.</p> <p>PHTA and their Washington members appreciate the opportunity to comment today. Our comments are not in regards to what is in the draft rule but what is not included. We previously submitted written comments in November that requested consideration to</p>	<p>Thank you for your comments. All stakeholder proposals were presented to the Technical Advisory Committee (a group of various electrical industry representatives) and the Electrical Board for their advice. The Technical Advisory Committee voted without opposition to recommend that the department not adopt your proposal. The Electrical Board reviewed all recommendations of the Technical Advisory Committee and agreed with their recommendation regarding your proposal.</p> <p>Washington currently has fifteen electrical specialty and sub-specialty license categories. Electrician certification examinations are focused on knowledge of Washington</p>

create a specialty electrical license for pools and hot tubs. The reason for that request is as follows:

Throughout the years, pool and hot tub industry professionals have raised concerns regarding how the electrical licensing program applies to them. Frequently, pool and spa professionals encounter electrical problems or needs that require immediate attention, but they are unable to service, install, repair or replace due to restrictions like amperage limits, commercial versus residential definitions, and minor production installations. Rather, certain restrictions and implications require a pool and spa professional to contract or hire an 07, 07B, or other category electrician to work on things such as pool and spa heating, wiring, pumps or lighting. Due to the current licensing structure, pool and spa professionals are oftentimes unable to service, install, and maintain the products they specialize in.

Currently, the scope of work for pool and hot tub repair electricians is largely to repair and replace. However, as repair electricians, many pool and spa industry members are not allowed to install anything new, yet they are tested on installation aspects.

Further, upwards of 80 to 85 percent of the state exam material that an 07 and 07B electrician are currently required to know is material that pool and spa license holders will never use. At most, 15 to 20 percent of the 07B test is relevant material a pool and hot tub electrician needs for their profession. When someone who only wants to do pool or hot tub work proceeds with trying to obtain an 07 or 07B license, they may have difficulty passing due to the large amount of the material outside of their scope.

Further, the 07 and 07B license holders who own or who are employed by pool and hot tub companies do not work on installing

electrical laws and rules, applicable National Electrical Code requirements, and general electrical theory.

The examinations are open-book to ensure applicants have knowledge of where to find requirements to answer the questions. Questions have been reviewed by electrical industry representatives to ensure questions are based on the electrical safety and code requirement aspects of work that is allowed to be performed within the specific specialty certificate, not on the various tasks required to perform specific types of work. Questions are not designed to ensure knowledge of operation, mechanical systems, industry best practices, or troubleshooting techniques focused on specific equipment, such as pools and spas, appliances, HVAC equipment, luminaires, etc.

Regarding electrical laws and rules, safety code requirements, and electrical theory, the knowledge required for the work of maintaining pool and spa equipment is similar to that required for maintaining other types of electrical utilization equipment.

ceiling fans, lighting fixtures, and other non-pool and non-hot-tub-related jobs. Someone who was trained and educated on pool and hot tub work should not be doing indoor residential work in a home or skysrise building. These jobs are within the scope of residential or commercial electrician. A specialty license would take the material pool and hot tub professionals are responsible to know and emphasize that for the testing. This would enhance the pool and hot tub servicing profession because the test would focus on the work that they should be skilled and knowledgeable on.

Current pool and hot tub electricians have licensing that gives them rights to things they will never use or service, and by way of creating a specialty license specific to them, they are in essence giving that residential or commercial work back to general electricians. Our request is to provide a license tailored to one's profession, which increases public safety, worker safety, and ultimately benefits the consumer.

So it's important to recognize that the work pool and hot tub professionals are doing is a contained process limited only to pools and hot tubs. The scope of the servicing work for the pool and spa industry simply does not fit within any other current licenses that the Department offers. And 07D might seem like a viable option, but it's not, due to the narrow scope. The 07D license is oriented to commercial appliances and repair rather than pools and hot tubs. The industry needs a license and appropriate testing for the scope of their pool and spa-related electrical work.

PHTA strongly believes that creating a specialty electrical license for pools and hot tubs would provide consistency, transparency, efficiency, and safety among the entire industry, electricians, and the public at large. Pool and spa electricians would then be

<p>required to obtain a license relevant to their profession.</p> <p>Further, by creating such a specialty license, they would be relinquishing the ability to do unrelated work they would otherwise be able to do when obtaining an 07 or 07B license. So on behalf of our Washington members and our entire association, we're asking for your positive consideration of this request. And, additionally, we understand that perhaps this is such a -- creating a new specialty license may not be able to be done in this rulemaking, so we're asking the Department to convene a meeting of stakeholders to openly discuss these implications and a path forward.</p> <p>We just want to make sure we're doing what's right for the consumer and the industry, and we appreciate your time today. Thank you.</p>	
<p>NFPA 70 – 2020 National Electrical Code In Article 517.31.G, regarding Healthcare Facilities, it states: “Coordination: Overcurrent protective devices serving the essential electrical system shall be coordinated for the period of time that a fault’s duration extends beyond 0.1 second.”</p> <p>However, in both Article 700.32 and Article 701.32, there is no time limit for selective coordination. This leaves the decision up to each jurisdiction within our state to decide selective coordination time requirements based on the definition in Article 100, which again there is none stated. Not only does this cause unnecessary stress during the bidding of a project (trying to remember what each jurisdiction requirement is – because they aren’t all the same) but it further raises the concern that it is creating additional arc flash hazards when the decision is to require 0.01 second.</p>	<p>Thank you for your comments. As you pointed out, coordination requirements in National Electrical Code (NEC) Article 517 for health care facilities are not the same as selective coordination for emergency systems and legally required standby systems. The coordination requirements for essential electrical systems of article 517 do not provide the same level of safety as selective coordination requirements. Amending the definition of selective coordination as you propose would provide a reduced level of safety for any electrical system in the NEC where selective coordination is required. You have not provided substantiation for reducing the level of coordination for other systems.</p>

<p>This forces all upstream devices to allow for a higher incident energy before tripping due to the trip curve being pushed to the right on a TCC plot.</p> <p>My proposed amendment is that we clarify the verbiage in Article 100 for the definition of selective coordination. If the time requirement of 0.1 second is considered safe and effective enough for hospitals and facilities where lives depend on it, it shall certainly be sufficient for all other buildings. This will avoid any confusion across the state and make our buildings more safe.</p> <p>Article 100: Coordination, Selective (Selective Coordination): Localization of an overcurrent condition to restrict outages to the circuit or equipment affected for the fault current events that extend beyond 0.1 second, and accomplished by the selection and installation of overcurrent protective devices and their ratings or settings for the range of available overcurrents under such conditions, whether originating from overload, ground-fault, or short circuit, and for the full range of overcurrent protective device opening times applicable to such events.</p> <p>Thank you for your time.</p>	<p>Further, cities with electrical inspection jurisdictions, as allowed by RCW 19.28.010(3) must enforce an equal, higher, or better standard of equipment than that required by the department. City jurisdictions allowing settings other than selective coordination as defined in NEC Article 100 (i.e., for the full range of available overcurrents and opening times) for other than essential electrical systems covered by Article 517, are in violation of the equal, higher, or better standard requirement of RCW 19.28.010(3).</p> <p>An avenue for accomplishing what you propose is to submit public input to the National Fire Protection Association for consideration for the 2023 edition of the NEC. You may do so at their website, http://www.nfpa.org.</p>
<p>The Pool & Hot Tub Alliance (PHTA) appreciates the opportunity to submit comments with regard to the Department of Labor and Industries (Department) preproposal statement of inquiry to consider input on possible revisions to chapter 296-46B WAC, Electrical safety standards, administration and installation. We respectfully submit the following.</p> <p>1. About the Submitting Organization PHTA, formerly the Association of Pool and Spa Professionals (APSP) and the National Swimming Pool</p>	<p>Thank you for your comments. All stakeholder proposals were presented to the Technical Advisory Committee (a group of various electrical industry representatives) and the Electrical Board for their advice. The Technical Advisory Committee voted without opposition to recommend that the department not adopt your proposal. The Electrical Board reviewed all recommendations of the Technical Advisory Committee and agreed with their recommendation regarding your proposal.</p>

Foundation (NSPF), facilitates the expansion of swimming, water safety, and related research and outreach activities aimed at introducing more people to swimming, making swimming environments safer and keeping pools open to serve communities. PHTA is the world's oldest and largest association representing over 3,200 member companies including swimming pool, hot tub, and spa manufacturers, distributors, designers, builders, installers, suppliers, retailers, and service professionals.

PHTA is the only American National Standards Institute (ANSI) recognized association to develop and promote national standards for pools, hot tubs, and spas. PHTA has developed 16 ANSI certified standards and is also the co-developer, along with ICC, of the International Swimming Pool and Spa Code (ISPSC). The ISPSC has been adopted internationally and in over 300 local jurisdictions within the United States, including 13 mandatory state adoptions, and 19 states with optional local adoptions. Washington is one of the 13 that has adopted the ISPSC on a statewide level. Additionally, PHTA offers certifications and education for every level and specialty within the industry; including pool and hot tub repairs.

2. Request for a pool/spa specialty electrical license

In addition to code and standards development, and a robust education and certification program, PHTA also provides local grassroots efforts, which include efforts to establish appropriate licensing or certification for the industry. Licensing requirements are different in every state and vary on the type of license. However, the fundamental core to all licensing requirements is to ensure that an individual is adequately trained and has enough experience

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The examinations are open-book to ensure applicants have knowledge of where to find requirements to answer the questions. Questions have been reviewed by electrical industry representatives to ensure questions are based on the electrical safety and code requirement aspects of work that is allowed to be performed within the specific specialty certificate, not on the various tasks required to perform specific types of work. Questions are not designed to ensure knowledge of operation, mechanical systems, industry best practices, or troubleshooting techniques focused on specific equipment, such as pools and spas, appliances, HVAC equipment, luminaires, etc.

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to practice their profession. By granting a professional license, tailored to one's profession, the state is working in the best interest of the public and the worker. Taxpayers deserve the right to acquire a licensed professional who will do the project or job that they require. The taxpayers also deserve the right to have the job done safely and correctly.

However, there is often a grey area with licensing. Different professions require different licensing. Sometimes, specific code requirements or certain professions require additional licensing to best suit consumer and worker needs. In other words, it is not always a cookie-cutter approach when evaluating who gets what type of license. For example, rather than an overall "contracting license" that would encompass multiple sub-contracting fields, there are instead professional licenses for those individual professions like electricians, plumbers, construction contractors and many more. PHTA has worked with various states in the past to establish specific pool and spa license categories that include robust education and training.

PHTA understands when working with a state you also must work within the confines of that state's existing licensure program. Therefore, PHTA is formally requesting that the Department, in conjunction with their review of chapter 296-46B WAC, considers creating a specialty license for pool and hot tub electrical repair and servicing within the existing electrical licensure program.

3. Background and Reasoning

Throughout the years, pool and hot tub industry professionals have raised concerns regarding how the electrical licensing program applies to them. Frequently,

pool and spa professionals encounter electrical problems or needs that require immediate attention, but are unable to service, install, repair, or replace due to restrictions like amperage limits, commercial v. residential definitions, and minor production installations. Rather, certain restrictions and implications require a pool and spa professional to contract or hire a 07, 07B, or other category electrician to work on things such as pool and spa heating, wiring, pumps, or lighting. Due to the current licensing structure, pool and spa professionals are often times unable to service, install, and maintain the products they specialize in.

A. Testing

Currently, the scope of the work for pool and hot tub repair electricians is largely to “repair and replace”. However, as repair electricians, many pool and spa industry members are not allowed to install anything new, yet they are tested on installation aspects. Further, upwards of 80-85% of the state exam material that 07 and 07B electricians are currently required to know, is material that pool and spa license holders will never use. At most, 15-20% of an 07B test is relevant material a pool and hot tub electrician needs for their profession. When someone who only wants to do pool or hot tub work proceeds with trying to obtain a 07 or 07B license, they may have difficulty passing due to the large amount of the material outside of their scope.

Further, the 07 and 07B license holders who own or are employed by pool and/or hot tub companies do not work on installing ceiling fans, lighting fixtures, and other non-pool and hot tub related jobs. Someone who is trained and educated on pool and hot tub work should not be

doing indoor residential work in a home or skyrise. These jobs are within the scope of residential or commercial electrician.

A specialty license would take the material pool and hot tub professionals are responsible to know and emphasize that for the testing. This would enhance the pool and hot tub servicing profession because the test would focus on the work that they should be skilled and knowledgeable on. Current pool and hot tub electricians have licensing that gives them rights to things they will never use or service, and by way of creating a specialty license specific to them, they are in essence giving that residential or commercial work back to general electricians. Our request would provide a license, tailored to one's profession, which increases public safety, worker safety, and ultimately benefits the consumer.

B. Residential vs. Commercial

Implications regarding definitions of residential vs. commercial under the current framework also create barriers for pool and hot tub electricians. The definitions largely have to do with the size of the building and not the equipment being serviced. This means that an 07B pool and hot tub electrician can service a pump, filter, and heater of a residential pool or hot tub, but are restricted to work on the exact same pump, filter, and heater in an apartment building with 10 stories. This discrepancy of not being able to do the exact same job because of definitions and number of floor stories is only causing implications for tax paying consumers, general electricians, and pool/spa professionals.

C. Amperage limits

Amperage limits on pool and spa heaters also cause implications for the industry. Pool and spa professionals are the most familiar with these heaters and should be allowed to work on them regardless of amp limits. Consumers and taxpayers are perhaps at a disadvantage more than anyone else because they will spend anywhere around \$5000 for a new heater, and an additional several hundred dollars to find and pay for a licensed electrician to wire it. The electrician who is doing the wiring, is usually not a pool/spa professional and likely does not deal with pool or hot tub electrical matters. This process needs to be safer, more efficient, and more consistent.

4. Summary

It is important to recognize that the work pool and hot tub professionals are doing is a contained process, limited to only pools and hot tubs. The scope of the servicing work for the pool and spa industry simply does not fit within any other current licenses that the Department offers. An 07D, might seem like a viable option but is not due to its narrow scope. The 07D license is oriented to commercial appliances and repair rather than to pools and hot tubs. The industry needs a license and appropriate testing for the scope of their pool/spa related electrical work.

Therefore, PHTA strongly believes that creating a specialty electrical license for pools and hot tubs would provide consistency, transparency, efficiency, and safety among the entire industry, electricians, and the public at large. Pool and spa electricians would then be required to obtain a

license relevant to their profession. Further, by creating such a specialty license they would be relinquishing the ability to do unrelated work they would otherwise be able to do when obtaining a 07 or 07B license.

On behalf of our Washington members and our entire association we ask for your positive consideration of this request. Additionally, we ask the Department to convene a meeting of stakeholders to openly discuss these implications and a path forward. We thank the Department for its time and consideration.