

CONCISE EXPLANATORY STATEMENT

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

Public Hearing: January 9, 2024

Adoption: February 21, 2024

Effective: April 1, 2024

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I. Purpose of Rulemaking

The purpose of this rulemaking is to adopt the 2023 edition of the National Fire Protection Agency (NFPA) 70, the National Electrical Code (NEC), and other related codes for electrical under chapter 296-46B WAC. The 2023 NEC (NFPA 70-2023) would replace the current 2020 NEC (NFPA 70-2020) adopted standards.

A. Background

The Department of Labor & Industries' (L&I) Electrical Program (Program) reviewed the existing rules and 2023 NEC (NFPA 70-2023) to update the rules for consistency with the latest national safety standards and industry practice. The 2023 edition of the code presents the latest comprehensive regulations for electrical wiring, overcurrent protection, grounding and installation of equipment.

The review process included an opportunity for electrical stakeholders and other interested parties to participate in the review of existing rules, submit proposals and provide recommendations for possible rule amendments. A Technical Advisory Committee (TAC) of industry experts and the Electrical Board reviewed the proposals and provided advice on adoption of the rules. This rulemaking adopts the latest safety codes, and other amendments to the rules identified during the formal review process and recommended by stakeholders to improve public safety.

B. Summary of the rulemaking activities

The Program's rule development process includes an opportunity for public proposals, review and recommendations of all proposals by a Technical Advisory Committee (TAC) and the Electrical Board, and public hearing process.

On April 4, 2023, L&I filed a CR-101 Preproposal Statement of Inquiry, [WSR 23-08-066](#).

A Special Edition, April 2023 Electrical Currents Newsletter was sent to stakeholders and interested parties via GovDelivery outlining the Program's rule revision process and sequence of rulemaking activities.

From April 4 to May 20, 2023, L&I invited interested parties to submit proposals for changes to the rules. L&I also solicited experts and industry representatives to participate on a TAC.

On July 11, 2023, the TAC convened a meeting to review rule proposals and provide recommendations to L&I. The TAC for this rulemaking consisted of 34 industry experts and interested group representatives appointed by L&I from across the industry. The purpose of the TAC is to evaluate rule proposals focusing on life/safety, state policies, maintaining a fair competitive environment, and correcting errors and omissions.

On October 26, 2023, the Electrical Board (Board) reviewed and provided advice to L&I on the draft proposed rules. The Electrical Board consists of 16 industry representatives. The purpose and function of the Board is to advise the director on all matters pertaining to the enforcement of chapter 19.28 RCW ([RCW 19.28.311](#)).

On October 9, 2023, stakeholders were notified through the Electrical Currents Newsletter a draft of the rule language was available online.

On December 5, 2023, L&I filed the CR-102 Proposed Rulemaking, [WSR 23-24-084](#).

On January 9, 2024, L&I held a public hearing on the proposed rules.

II. Changes to the Rules

The differences between the text of the proposed rule and the rule as adopted include:

WAC 296-46B-100, General definitions. Subsections (c) and (d) were amended under the definition of “low voltage”. The references to NEC 725.121(A) were updated to NEC 725.60(A) for consistency with the NEC.

WAC 296-46B-920 Electrical/telecommunications license/certificate types and scope of work. The following subsections allowing an increase in the scope of work for 06A HVAC/refrigeration specialty electricians were removed to allow more time for conversations with stakeholders and consideration in possible future rulemaking:

- WAC 296-46B-920(2)(f)(iii)(A)(IX) allowing certain wiring of mini-split HVAC systems.
- WAC 296-46B-920(2)(f)(iii)(A)(X) allowing installation of external overcurrent protection devices for replacement gas or oil furnaces.

- WAC 296-46B-920(2)(f)(iii)(A)(XI) allowing installation of surge protection devices for HVAC equipment were removed.
 - In WAC 296-46B-920(2)(f)(iii)(A), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) and (X) that were removed from the rule.
 - In WAC 296-46B-920(2)(f)(iii)(B)(I), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) that was removed from the rule.
 - In WAC 296-46B-920(2)(f)(iii)(B)(II), removed the exception referring to WAC 296-46B-920(2)(f)(iii)(A)(IX) and (X) that were removed from the rule.

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 on December 5, 2023, and closed on January 9, 2024. Twelve (12) parties submitted written comments.

B. Public Hearing

A hybrid public hearing was held on January 9, 2024, at 9:00 a.m., at L&I Headquarters. Seven (7) L&I staff and twenty-three (23) other persons attended the public hearing. Nineteen (19) persons gave testimony.

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>Comment: Support of WAC 296-46B-920, Electrical/telecommunications license/certificate types and scope of work.</p>	<p>Response:</p>
<p>WAC 296-46B-920(2), and there's four revisions affected here. This adds some additional allowances for 06A electricians. I am a journeyman electrician and journeyman HVAC from Idaho. I carry what is equivalent, the 01A license, in Idaho. And I come to you to discuss these allowances to allow the expansion of the 06A very specifically because it enables the 06A's who have the training and the testing as required by the State of Washington to do work that is well within their scope of practice. Adding a disconnecting means is a very simple process and should not hold up the heating of a home to require an 01 or 02A to come to connect up two wires. This is a very simple process and should not require additional workmanship.</p> <p>On the expansion of the 06A's for mini-split installations, this is 2(F)(iii)(A)(XI)(F)(IV)A and B. These are very important for the continued scope of work for mini-split installations. A lot of times during installations, the installations will bleed into multiple days. And now we have homeowners without heating or cooling because we're waiting for someone else to come and do an installation.</p> <p>Again, 06A's are trained on how to install these branch circuits, and the code very specifically prevents the 06A's from going outside of an acceptable scope of work. Any new circuits, any additional circuitry from the panels to the locations would require</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

01A and 02A electricians to complete that work. The 06A electricians would only be allowed to run branch circuits and communication circuits as a system defined. These mini-split installations define the size of the wire. It defines the type of the wire and the routing is typically less than 15 feet. 06A's are currently trained on branch circuit wiring. They have to pass the test to hold their 06A licensing. So they have the skills. They have the expertise to do said work. And again, there's nothing going on beyond what is dictated in the installation manual.

In my experience, we've had multiple issues throughout the years of 01A and 02A who are not familiar with mini-split equipment running incorrect wire, making incorrect connections because they do not understand the mini-split product. And it has caused errors that created an expense for multiple individuals of removing sheetrock, repairing damaged equipment due to these incorrect connections.

So I highly encourage that the State of Washington follow the guidelines that many other states have put into place and enact 296-46B-920(2). Thank you.

Referring to 296-46B-920(IX). And I've seen these ductless systems come into our industry over those years. And Entek and a couple of the manufacturers that are represented here have put an extensive amount of training into making sure that our HVAC contractors are trained and best suited to be able to get the interconnecting cable, which is what we're talking about here. We're not talking about the line feeding them but that interconnecting cable. And in my years of seeing this happen, the

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biggest problem that we had originally with these systems was that cable not either -- either not being the right cable or not being run properly.

I'm a 01 administrator and I hold a 06 electrical license as well. And at least at our company and the companies that these vendors that are represented here have extensive training compared to the 01 electricians from only electrical companies that have been involved in running that wire for us. We feel like that at a minimum, that the HVAC contractors that hold an 06 license should be allowed to run that wire while they're installing the refrigerant lines.

We talk about the attic and crawlspaces. That's we're running the refrigerant lines through those spaces, and the wires typically run following that. If it goes in later, some of the issues that we have are securing that and running in the line height on the side of buildings, those kinds of things.

Also we've had it run next to other high-voltage things in the past. This created problems. And I don't know if anybody else can speak specifically on that as far as the number of warranty type or service type things that the manufacturers get. I mean at Entek, we train every week throughout the school year and this is something that we cover extensively also in our in-house training.

So I don't think that it's not a blanket statement can't be made about a lack of training in our industry for this. And I'd say at a minimum, allow the 06A electricians to run the wire. A 01 needs to

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<p>be there to terminate the line voltage to that outdoor unit anyway. And if there were a compromise to be made, I would say that that 01 can at that point terminate the interconnecting cable to where they can at least run it.</p> <p>Another problem that we've seen is that when those refrigerant lines go through a wall, an outside wall, they need to be sealed at that wall. And we'll go in and install those lines and seal them. If we can run the cable at that same time, the cable can be sealed also. We've had times that cables run later and it breaks that seal and then we have problems with that too.</p> <p>So that would be my comment on it. And I think in summary, I would at the bare minimum, let's allow those 06 electricians to be able to run that wire to be able to have a clean install with a properly run interconnecting cable.</p>	
<p>College Place Heating has been committed to following rules set by Labor and Industries regarding the installation of the ductless communication wire. Labor and Industries requires that we take out a line voltage permit for this working for communication wire and have the communication wire installed by a 01 or 02 electrician.</p> <p>In a typical ductless installation, communication wire represents a fraction of the overall work to be done but needs to be installed at the same time as the refrigeration line for practical purposes. I can get into that further if needed.</p> <p>Because our 06A electricians cannot install the wire, College Place Heating has turned to my department that utilizes 01 and 02</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p>

electricians to install the entire ductless system. This requires our electricians to install refrigeration line and commission some of these systems. This has taken our electricians, our 01's and 02's away from our normal electrical construction work.

We have gone to using 01 and 02 electricians to make the ductless installation more efficient and eliminate the time and cost spent waiting for a 01 and 02 electrician to run this communication wire. Our ductless customers have appreciated this change but our customers utilizing the electrical side of our business have not appreciated that.

Our position is by allowing 06A electricians to install ductless communication wire, this will alleviate the bottleneck around the installation process of the ductless heat pumps and allow our electricians to do construction wiring rather than refrigeration work the 06A workers do on a daily basis.

Lastly our six 06A electricians are trained by equipment manufacturers and distributors on how these ductless units should be set up and operate. The specific training is critical when it comes to hooking these systems up.

The code classes for our 01 and 02 electricians are based solely on NEC, WAC, RCW providing non-specific training -- or no specific training for the ductless systems. This provides a challenge when it comes to hooking them up.

This fact makes the 06A electrician a better choice install a ductless communication wire and hook them up as they have the

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<p>training and background to properly and safely install the ductless systems and communication wire.</p>	
<p>I just want to testify here in support of the electrical rule changes, specifically to the HVAC changes in WAC 296-46B-920.</p> <p>I think we've heard a lot today about some of the questions. I think the one thing I want to state first is 06A's are electricians licensed by the Department of Labor and Industries. I've heard a lot about pass rate. If they do not pass the test, they are not 06A's and would not be able to do anything under this rule, anything under this rule, including the new changes. So I think that's really important to mention.</p> <p>L & I regulates this industry. They are electricians. And I think I've heard some people that kind of alluded they are not. They are electricians. The number of hours required to get a 06A license is the same as a 02. The difference with an 06A is they are HVAC specialists. So they are trained specifically on HVAC equipment. I've heard talk about scope creep. We're asking for a scope change, not because we went out and said, "Do ductless mini-split systems."</p> <p>But we have our State Building Code Council and local jurisdictions all over this state who are saying, "Put in ductless mini-split systems."</p> <p>In your woodstove change-out programs at Department of Ecology, they are now encouraging people to change out their</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

wood stoves for ductless -- the mini-split installations. It's one of the most efficient ways to bring both heating and cooling in an electrified world to people with older houses. So it is becoming a growing HVAC installation.

We are not talking about taking work away from any of the 01's and 02's who are doing this today. We are talking about making sure that your HVAC specialty electricians, who are trained in how to do this, who do have the apprenticeship training, etc., to do this work are able to do this work as the government, laws, regulations, energy codes, and consumer demand make mini-split installations one of the primary HVAC installs.

The purpose of having the HVAC specialty electrician was specifically to make sure you had a specialty electrician who works on these HVAC systems. And the HVA systems are changing and we are asking the code to change with it.

There is no data to indicate that there is a safety issue anywhere with having 06A's do these installations. We are the only state that we can find that does not allow our HVAC specialists to do this work, the only state.

Yes, the training often comes from manufacturers that's because what we are asking in this code change is that we are able to install the whole appliance. We still need the 01's and 02's, who are the generalists in electrical. And we appreciate that, that they know everything else about the house. They will do the outdoor

unit and make sure it's wired into the house. What we are asking is to be able to install the appliance per the way the appliance has to be installed. And we are trained. The 06A's are trained on that.

There are a lot of side boards around this; length of the wires between the two units, all sorts of types of housing, what types of buildings they can do this work in. We have put those side boards in place, recognizing that we need to look at where that HVAC, where that 06A, is most likely to be doing that work.

It is not a union versus non-union issue. There are a lot of 06A's who are union. They will also be able to do this work. And so I think it's really important to mention that.

We do want to make sure emphasizing again on the training because that has been brought up quite a bit. 06A's, once again, are electricians. They are trained to the NEC codes. Those codes are not changing, we are not asking L & I to change its inspections. We are not asking L & I to weaken anything in what is required around the installation of these devices. The 06A's, if they don't know this, they are going to have to step up to be able to do this right. But the reality is no one has shown us any safety data to show that they cannot anywhere across the country.

We do talk about consumer benefits because that is important. Consumer costs are important when you want somebody to get something safely installed. A lot of these ductless systems could be installed by a homeowner. We want them calling a trained

electrician to do this. I think the 01's and 02's should want that as well.

And once again, the 06A's are trained electricians with the same number of hours to become an electrician as a 02, yet they specialize in HVAC just like a certain doctor would specialize in a certain body part. So if you're an OB-GYN you're not over there doing ortho surgery. If you're a GP, you're not in there doing cardiology. It's the same type of thing. They focus and they specialize and they work specifically on these units.

And consumer benefit is important because consumer benefit and cost efficiency is important to making sure that consumer has it done in the most safe manner possible.

We want to look at a couple of other things. I want to address some other things. The cables are often specific to the appliance. Sometimes they are -- they do come with the appliance. But in any case, they're always specific to that appliance. And that is important to know.

We also have to make sure that the manufacturer has a stake in the proper installation of this appliance. This isn't something the manufacturers are just going to if they're up here saying, "These guys can do it," it's because they allow them to be done in every other state. But they also know that they can make sure that it's done safely and properly. Because if that appliance goes wrong, it's on the manufacturer. In addition to any safety issues, the manufacturer has significant liability in that as well.

We do want to make sure -- also I want to address things about -- I've heard a lot about the TAC process. I served on the TAC. Yes. It was controversial. But it also passed the TAC, the proposal did.

And I think the one thing I do want to talk about in this is that I appreciate the Electrical Board didn't approve it. But the Electrical Board -- I don't even know how many 06A's were on that board. I think it was mostly discussions about scope creep and job protection. And the people who serve on the Electrical Board are advisory only. This is the Department's decision. It is the Department's decision based on what they know about the safety and the ability to inspect and the ability to make sure that these are done properly and the way that they would even if an 01 other 02 is doing the system. And that is what will happen.

I think it's really important also to note that not just the hours, not just that these are professionals, not just that as we move through with the Electrical Board and everything that goes along with that, that you have HVAC specialists around this state who are working hard to do what is required to make sure people are able to get these pieces of equipment.

Once again, it's safe. There is no change in anything that would relate to that safety. We are not changing anything in regards to that. People have talked about the pass rates. I would like to know what the pass rate is for 01's and 02's their first time through. I've heard it's not that high. I don't think it's above 50 percent. I'd like to know. I think electrical fortunately is very hard to pass your first time through, and that's a good thing. And I can assure you that

<p>anyone who is not passing that exam will not be out doing this work if it's up to us and our contractors that are out there.</p> <p>They are 06A electricians. They passed the test. They passed the requirements that L & I sets up for them. We would like to move this forward. We'd like to get to do this work. We'd like to work with the 01's and 02's, as we do now.</p> <p>And the other thing is that I think it's really important to note that the SBEIS was determined to be not necessary because once again, there's going to be enough work for everyone to do this. And I don't think you're going to have any stranded hours out there for anybody who's an 01 or 02. They can still do this work if they want to. They will also be able to do a lot of other work that will be out there as we move towards electrification and climate change. And we think this is actually a positive move forward for climate change because it will get more of your residential HVAC contractors able to be out there helping their consumers and their customers actually change those electrical mini-split systems that can help them get not only heating and cooling but also very efficient heating and cooling in their homes.</p>	
<p>I wanted to talk on more the manufacturing side and the distribution side. As far as what I see on a weekly basis, taking calls, going to job sites -- this can be residential all the way up to commercial in the VRF world -- is we get a lot of calls on, "Hey, our equipment is not communicating."</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p>

And so we start to dig into it. And what happened is the electrician ran a solid core wire 14/3 solid core wire, which our documentation strictly says it has to be stranded wire. Well, as somebody else said earlier, our equipment will not communicate properly if it's a solid core wire. So that's one issue that we run into all the time. The other thing is -- and it just sounds like everybody thinks of ductless as to one-to-one system. It's not that case anymore. We are getting up to 5 zones with one outdoor unit, 8 zones with one outdoor unit. You get into the single-phase VRF world and we can have 9, 10, 11 zones on the single outdoor unit.

And the biggest call I get -- and this is one that costs homeowners; it costs contractors; it costs distribution and the manufacturer -- is when these things get -- you have a 5-zone system. The electrician brings it all back and they start hooking it up to the outdoor unit and they get zones crossed. So what that means is a head is calling for cooling in one room, but it's not wired to the correct port outside. So the refrigerant is going to another head in another room.

I can't tell you how many times we've had customers who've had -- our customers, so dealers, contractors -- their customers threatened lawsuits because there's water has went down the sheetrock because they're sending refrigerant to a head that shouldn't be getting refrigerant. That's a major issue. This has been an issue since multi-zone has been out. And multi-zone really started taking off in 2005, '06, somewhere in that range. That is kind of a big one that we see.

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

<p>As far as the training that we give to our customers, we have a very large, brand new training lab down in Vancouver, Washington. We're in the process of building one in Fife, Washington right now. We have one in Spokane. And in the future, we will have others. And we go through step by step. Every training I do talks about the wire we have to use, the way you wire it up. I don't go into specifics on how you strap it up, you know, in an attic or under the crawl or anything like that. But there is a specific wire and a specific way these things have to be hooked up when you're looking at multi-zone.</p> <p>So I'm in favor of this just because of that point. I mean I could talk all day about, you know, my experiences over the years as a contractor, but I won't go into that. So I am for this code change.</p>	
<p>I always feel bad on something like this. It's not about anything negative against a 01 electrician or what they can do. But I will tell you this: The industry is changing so fast in ductless and VRF, especially ductless, which we're talking about. We're not just talking about just one-to-one systems anymore. We're seeing full product changes happening every six months. And the amount of training that we have to do with HVAC contractors is just -- even five years ago we weren't doing this. We're investing millions and millions of dollars into our training facilities for on-site hands-on training with live equipment.</p> <p>We work with everybody from local HVAC colleges to high school students to HVAC, you know, technicians, installations. And we work with the factory. We work with engineers. And a lot of this is covered in the technical literature. It's all in there on what needs to</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

be done, what type of wiring, you know, everything from fuses to, you know, how it gets installed. It's all there. We train on this all the time. In fact, we're training thousands and thousands, literally thousands, of people yearly that run through these facilities.

Sometimes what we're talking about here is a little bit of an outdated model. If you're talking about the implementation of electrification, there is a lot that has to be done. And really the homeowner or somebody who owns a building, it just doesn't make sense to have – an HVAC contractor owns this thing for the homeowner, and then to have this outside person just kind of randomly come in and just do a few things. When something goes wrong, it's going to be worked out through the HVAC's contractor, through our distribution network, partnering with the factory. And it's not really going to involve connecting with one of these unions or anything like this. It's going to be done this way.

I just want to make sure it's understood the amount of training that goes into this through the manufacturer. And there's a lot of standards, certifications and, you know, checking off the boxes.

And we're really just talking about the interior connected cable, wiring, here. We're not talking about taking away doing a lot of work that gets done every day. In fact, you know, even companies that are in here that have HVAC companies have electricians with all those types of license that do all that other kind of work. We're talking about doing something that makes more sense for the homeowner when costs are racing out of control to try to just keep it under control. It just makes sense. It's really, really super-

<p>redundant to have that 01 electrician do this work that really -- well, we won't go over examples of what I think would be a good metaphor.</p> <p>I'm in favor of the rule change.</p>	
<p>One person brought up there a little bit ago about why is this coming up again? Well, this is coming up again because a lot of us HVAC contractors are frustrated with the non-training of 01 and 02 electricians. They are not paying attention to the installation instructions or what we say. We need stranded wires. We need 14/3. We need 14/4. And then they run solid core because, well, that works is what they say.</p> <p>I mean a 06A journeyman like myself -- I've been a journeyman since 2010 -- we have to take an awful lot of classes. McKinney that's there in that room is one of the trainers that -- we sit in classrooms with that individual to provide training on all these different kinds of things for ductless minis.</p> <p>So it just becomes frustrating for us maybe smaller companies. Maybe I'm representing the HVAC smaller guys, the non-union guys. Maybe that's what I'm representing also. But we are repairing several -- I've probably put in hundreds of these units over the years. And we're always going back and repairing crossed wires, miscommunication wires. Electricians are wiring high-voltage to the signal side of the outdoor unit and blowing the outdoor units up. Now we have cost issues because they're not paying attention.</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

But us 06A guys, we're trained on that. So we should be allowed to make that point A to point B connection from indoor to outdoor. I'm not asking for disconnects. I'm not asking to run a circuit to a panel. I'm just asking to do that main communication area on the outside.

And like others have said, this is getting more and more complicated on the communication side. The stranded wire is very important. However things landed on the equipment is very important. You can't splice this equipment. And if you do, you need to solder the connections so it can maintain the communication.

But we've argued -- I've argued with 01 electricians in my area that "That doesn't matter. We have wire nuts, you know, dielectric grease in it. That'll be fine." Well, it doesn't work. None of that stuff works. You know. So that's my biggest problem.

I'm all for this. This should change because everything is changing. I do multiple-head systems. I'll even mark my lines coming -- you know, where my line sets are on the unit. But yet the electrician just seems to think that that wire can go anywhere on an outdoor unit. It can't. One gentleman even talked about that, where one head inside was running and the other room was the one that's calling. So now we've got a frozen compressor; a blown-up compressor; a seized unit that's melting inside, defrosting in somebody's room and destroying sheetrock.

So I think we need to leave this to the HVAC contractor that understands this communication. Because I currently do not

believe 01/02 licensed electricians are getting the proper training on this type of equipment. So that's the part that makes me kind of sad.

The other part that makes me kind of sad is the political aspect of this, which we have several thousands of people being represented on this call from one union base -- we'll just say it -- and then me coming from a non-union area, coming from the HVAC area. It just --you know, I've tried to get more friends involved in this because I just think that there's way more political power coming from the other side. And I think more of us small HVAC guys need to get heard.

And we understand what the training -- the 06A has to go through the NEC. We have to take classes, 24 hours. Our training's going to take 48 hours. We understand tray wires. We understand chapter 9. We understand 240. We understand the 440 chapter. We have to. So we're book smart.

I took my test. I passed it the first time too. But a lot of guys struggle with that because when they first got into it, they didn't quite understand what they were taking the test over. Now I have enough information I could literally know how many plugs to run in a 10-by-10 room. Why do I need to know that? That's another complaint for another conference.

But for now, I think we need to move forward with this proposal and allow the 06A's to make these communication connections.

The Building Industry Association of Washington (BIAW) is the voice of the housing industry in the state of Washington. We are dedicated to promoting the vitality of the building industry and the housing needs of the state's citizens. BIAW represents nearly 8,000 members engaged in all aspects of home construction. On behalf of BIAW, please accept the following comments regarding the Department of Labor and Industries' rulemaking regarding Electrical Rules.

Since the adoption of the State Building Code Council's 2021 Energy code, more housing is moving towards electrification. The installation of mini split systems has increased as more customers are now using these methods for heating and cooling. The installation of mini split systems is the most affordable and efficient way for builders and homeowners to meet electrification goals.

The Building Industry Association strongly supports the proposed electrical rule for allowing 06A HVAC Specialty Electricians to connect indoor mini split units to outdoor units for the following reasons:

- 1. Improving electrician availability.** Currently, there is not enough availability of 01 and 02 electricians overall, causing delays for builders and homeowners which increases costs. By adopting this new rule, HVAC electricians will be able to install mini split systems – and currently do so in every other state. Inspections and permitting requirements would remain the same, creating more efficiency without sacrificing safety.
- 2. Saving time and money.** Under current codes, the circuits need to be run in very close coordination with the HVAC professional

Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

<p>(who is likely to be a 06A electrician) to be working in the same space at the same time with an 01 or 02 electrician, this creates challenges coordinating time and workspace. By allowing an HVAC installer to do all the final wiring, this saves time and reduces the costs needed for an additional electrician to finish the project.</p>	
<p>My stance on the changes to WAC 296-46B-920 is IN SUPPORT of this amendment, for the following reasons:</p> <ul style="list-style-type: none"> • 06A Electricians in the state of Washington are allowed to disconnect and reconnect/terminate 120/240v energized HVAC like-in-kind replacement systems. This requires them to know how to deenergize the circuit, undo the terminations, and remove the fittings that are attaching the wire or raceway to the equipment, then put it all back together again. • A large part of 06A work is utilizing wiring methods to install low voltage wiring systems. This includes securing and supporting wires and cables, as well as installing proper fittings to enter enclosures, and to make terminations. These methods are the same methods that are utilized when installing tray cable for mini split systems (tray cable which is UV rated as well as direct burial rated, which speaks to its durability). • My team of roughly 30 electricians work closely with our HVAC installers, for both installation of electrical for their equipment, as well as hands on training when installing and terminating conductors. These technicians are either licensed 06 electricians, and/or hold an electrical trainee card issued by Labor & Industries. 	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

I can't speak for other companies, but here at Washington Energy Services, proper training is extremely important. We rely strongly on training for our equipment installations by our equipment representatives and their certified trainers, our experienced HVAC technicians, as well as our licensed 01/02 electricians who work side by side with our HVAC technicians every day.

For mini split installations, coordination of our HVAC and Electrical teams is not only important, but very difficult. On any given installation, we will always have wasted labor, due to HVAC teams waiting on the electrical team to arrive and install their communication cables, or the electricians waiting on the HVAC team to install the equipment. The labor waste, depending on the complication of installation can, and is in many cases, quite high. I believe this coordination and labor waste to be even more excessive for those HVAC companies who have to outsource electrical companies.

These costs ultimately fall back on the customer. Because of the limitations that 06A electricians have currently with their license, additional margins are added to the cost of the job to offset these extra labor costs. This new code amendment will allow contractors to lower the costs for customers, as the labor allotted for each installation will be reduced. This will also reduce labor costs on the administrative side for coordination in scheduling.

- As an electrical contractor for an HVAC company, we have had an uptick in builders hiring our team for the sole purpose of installing all the communication wiring for their mini split systems. This is due to the licensed 02

<p>electricians not understanding HVAC equipment and the wiring specifications and/or methods, or wire types needed for the equipment. We also take on these projects when electrical contractors refuse to do any wiring for mini split systems, outside of the branch circuit to the outdoor unit. This becomes more and more common as the mini split system technology evolves.</p> <p>This step of allowing a licensed 06A to install mini split communication wire is a necessary step in the rapid evolution and adoption of mini split heat pump systems. I ask that you please take all these points into consideration and move forward with accepting and implementing this new amendment.</p>	
<p>I am writing to express my support and advocate for the approval of the proposed changes outlined in WAC 296-46B-920 concerning Electrical/telecommunications license/certificate types and the scope of work for HVAC contractors.</p> <p>The proposed updates to the (06A) scope of work are essential for adapting to the evolving landscape of HVAC systems, particularly focusing on mini-split HVAC refrigeration systems. Allowing electricians with (06A) licenses to undertake specific tasks directly related to these systems is a necessary step forward in ensuring that qualified professionals can address the intricacies of modern HVAC technology effectively.</p> <p>Furthermore, the adjustment allowing the installation of lower-rated overcurrent devices compatible with replacement gas or oil furnaces is a prudent move. It acknowledges the need to maintain</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>compatibility while ensuring safety and compliance within the industry.</p> <p>Moreover, the inclusion of provisions for installing devices to safeguard sensitive electronics in HVAC/refrigeration equipment is commendable. As technology continues to advance, these protections are vital to maintaining the functionality and longevity of such equipment.</p> <p>In conclusion, the alterations proposed for the (06A) and (06B) scopes of work reflect the need to adapt to technological advancements. Therefore, I earnestly urge the approval of these proposed changes to WAC 296-46B-920.</p>	
<p>On behalf of one of the largest residential new construction HVAC contractor in the area, I'd like to express my SUPPORT of the amended changes to WAC 296-46B-920.</p> <p>At Bob's Heating & Air Conditioning, we work with the majority of builders in the area providing HVAC installations and services to homes built in the Puget Sound region. We are on the front lines of adopting each new energy code and helping our builders achieve the energy credits needed for the homes they are building. The changes proposed to WAC 296-46B-920 would have a significant and positive impact on our industry, reduce labor costs, allow 01 & 02 electricians work on other electrification projects in this state and help us all achieve our collective climate goals, with the downstream affect benefiting homeowners across Washington State.</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

The recent adoption by the State Building Code Council of the 2021 Washington State Energy Code moves more housing towards electrification and provides more credits for electric heat pumps in residential new construction. The installation of ductless mini split systems is the most affordable and efficient means for builders and homeowners to obtain the necessary energy credits. Installation of ductless mini split systems has increased significantly across the state as more customers look to these systems for heating and cooling in their houses in the move toward electrification. These systems have gone from being an occasional install to being a primary HVAC installation in new construction homes in the Pacific Northwest.

The effort toward electrification has put pressure on the availability of 01 and 02 electricians overall. With greater electrification of new and existing homes, these specialties are stressed to get the major work done in this arena. The wait for 01 and 02 electricians has created delays and hardship for builders, homeowners and for us as contractors. These delays increase costs for all and are unnecessary since HVAC electricians are trained in the installation of ductless mini split systems and do so in every other state in the country.

In addition, it has been our experience that the electrical contractors who employ 01 and 02 electricians are not interested in running the communication wire for mini split installations, causing even more difficulty in finding electricians who want to do this work and getting them scheduled in a timely manner. Adopting the proposed changes to WAC 296-46B-920 would allow us as

<p>HVAC contractors to install these mini split systems more efficiently and less expensively.</p> <p>If a 06A electrician were allowed to run these circuit conductor cables, coordination would be easier, labor efficiency would increase which would create more cost effectiveness for the consumer. There would be no sacrificing safety due to the fact that a 01 or 02 electrician will be on site to install the new circuit, conductors, and OCP to the outdoor unit. Therefore, they would be able to review the installation practices of the indoor unit conductor circuit(s) by the 06A electrician.</p> <p>This amendment just makes sense. Please allow 06A electricians to do the work that they are educated and trained to do, and that 01 & 02 electricians aren't prioritizing.</p>	
<p>On behalf of the Washington Air Conditioning Contractors Association (WA ACCA), thank you for the opportunity to comment IN SUPPORT OF the changes to WAC 296-46B-920. WA ACCA represents HVAC/R contractors and distributors across the state of Washington. We believe these changes will safely integrate 06A licensed electricians into the work that needs to be done in order to meet the needs of electrification for both new and existing homes and multi-family residences as we work to achieve our climate goals.</p> <p>Below are comments illustrating why this rule change is important and why it will not degrade current safety requirements for installation of these products:</p> <ul style="list-style-type: none"> • The recent adoption by the State Building Code Council of the 2021 Washington State Energy Code moves more 	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p>

housing towards electrification and requires electric heat pumps in new residential construction. The installation of ductless mini split systems is the most affordable and efficient means for builders and homeowners to meet this requirement. In addition, installation of ductless mini split systems has increased across the state as more customers look toward these systems for heating and cooling in their houses in the move toward electrification. These systems have gone from being an occasional installation to being a primary HV AC installation in homes.

- This move has put pressure on the availability of 01 and 02 electricians overall. With greater electrification of new and existing homes, these specialties are stressed to get the major work done in this arena. The wait for 01 and 02 electricians has created delays for builders and homeowners. These delays increase costs and are unnecessary since HV AC electricians are trained in the installation of ductless mini split systems and do so in every other state in the country. Nothing in this rule change takes away the ability for 01s and 02s to continue doing this work.
- The current 06A electrical license allows for the running of low voltage wires.
- The control circuits between components of a ductless system include up to 240 volts; however, the conductors for these circuits are specified by the manufacturer. The type of cable is standardized. The terminations on both ends are coded.
- No calculations are needed for these conductor sizes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

- These circuits need to be run in very close coordination with the HV AC professional both in time and space. Under current codes this requires a 01 or 02 electrician and HVAC professional who is likely to be a 06A electrician to be working in the same space at the same time - creating inefficiencies and challenges with coordination of time and workspace.
- If a 06A electrician were allowed to run these circuit conductor cables, coordination would be easier, labor efficiency would increase which would create more cost effectiveness for the consumer. There would be no sacrificing safety due to the fact that a 01 or 02 electrician will be on site to install the new circuit, conductors, and OCP to the outdoor unit. Therefore, they would be able to review the installation practices of the indoor unit conductor circuit(s) by the 06A or 06B.
- Inspections of the installation would remain the same. The entity performing the installation of the cable between the outdoor and indoor unit must have an electrical work permit for new circuit(s).

There have been many concerns regarding training which is already sufficient for the professional who have earned their 06A electrical license and are working to install equipment from manufacturers who work hard to ensure their installers are doing things safely and correctly.

In addition, when opponents bring up exam pass rates that really should not impact the Department's decision. First attempt pass rates are low for all electrical types because it is a difficult test.

<p>You don't become a licensed 06A electrician without passing the test, so therefore if you fail, you will not be able to do the work under these rules.</p> <p>We hope the Department will recognize the need to adapt the HV AV /R 06A licensed electrical specialty to the changing world of HV AC to ensure that these units are safely available for consumers looking for up to date heating and cooling needs in our changing world.</p>	
<p>Comment: Opposed to WAC 296-46B-920, Electrical/telecommunications license/certificate types and scope of work.</p>	<p>Response:</p>
<p>So I'm here to speak on behalf -- opposed to the proposed change to the Washington -- Washington code change 296-46B-920. My position is Training Director for the NECA-IBEW Electrical Training Center. And I'm confused as to how training is -- I'm concerned about the level of training. I'm confused how an HVAC contractor is able to train their apprentices to eventually become an 06 journeyman in the application and installation of branch circuits, disconnects, grounding and bonding, and the National Electric Code.</p> <p>When you encounter a building and install building wire, the main job of an electrician is to first of all make sure that that installation is safe and will not in the future at any time set the building on fire or electrocute its inhabitants.</p> <p>As part of my apprenticeship and other 01 apprenticeships, we spend -- our work processes are very well-defined. We spend a</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

thousand hours learning about branch circuits. We spend another thousand hours working on learning residential wiring applications and code safety rules and laws. We spend another 250 hours of grounding and bonding. And that's where my confusion comes in, how a 06 license can fit that into their apprenticeship.

So I think there's a lack of training here. And I'm very concerned about a lack of training, the tradeoff, allowing 06 installers to put building wire into a building without requiring some sort of training. There's nothing in here that requires adding work processes to the apprenticeship. There isn't anything here that does anything other than make it more convenient. And that's my -- that's my major concern. We're trading convenience for safety.

I am also concerned about the process that's happened here a little bit. The Electrical Board – it wasn't stated clearly at the beginning, but my understanding is that the Washington State Electrical Board opposed this change. So I would like to know, you know, what body has brought this forward above their recommendation so-- I think most importantly, we have people doing this work. There isn't a reason other than convenience. The consumer doesn't gain any benefits from this. And in fact, they're unaware of the hazards of having somebody without enough training.

Just penetrating a wall, going up into an attic space, navigating a concrete footing, all of those things, there's -- that needs experience. It needs on-the-job training. It needs an understanding of the National Electric Code. You need to understand securing

and supporting of wire. You need to understand proper sizing of wire. You need to understand the difference between a cable and a raceway. You need to understand if cables and raceways are compatible.

So -- and I really don't want this glossed over as a simple installation. In fact, if it was a simple installation, manufacturers would provide the wiring and provide the whole assembly instead of requiring it to be partly built on site. Each of these installations is a bespoke installation, and so the installers need to be prepared. And you have to do that through training. There's no other way. I can't emphasize that enough.

And since there's no addition to training in any of this, I just -- I just don't think we can leave it to the contractors, to the apprenticeship programs, to try and wedge in and sacrifice.

I'm kind of curious what they would be willing to take out of their apprenticeship program to add this in. Even though the scope of the license covers it, some of the -- you know, some of the electrical concepts, they don't get the concepts of navigating through attic spaces, crawlspaces, you know. What happens when you have an old building? There's so many variables there. What type of cabling system are you going to use? What type of raceway system are you going to use? And then how do you ground and bond it? How do you make sure the grounding and bonding system is appropriate?

<p>So that's what I would like to point out as a professional trainer. I don't see that the training is happening past that. And I don't see anything for requiring training in the future.</p>	
<p>I am here to oppose the WAC rule pertaining to the interconnecting cable for air units, and that is WAC rule 296-46B-920(F)(5). Hopefully we're all on the same page. That was quite a citation. The basis of the opposition has to do with the increase in importance for mini-split systems as we meet our climate goals and combat climate change and to be resilient towards climate change.</p> <p>All over the state of Washington our homes and businesses are ill prepared to deal with the kind of heat wave that we've had in the last several years. The need for these systems is exponentially increasing. And that is not the time to lower the standard. We feel it is more important than ever to use licensed journey-level electricians and supervised apprentices to do systems that are safe and reliable.</p> <p>And I've heard a lot of confusion in the arguments and the conversation on this topic. On the one hand, I've heard people say that it's easy, that it shouldn't be licensed the way it is. And then I've heard people say that it's hard and that not even a journey-level electrician can do it.</p> <p>We need to cut through the rhetoric in these arguments and make sure that we are continuing to have a system that works today, that is safe for the consumer and the worker, because these issues are not getting smaller. They're getting bigger. And the</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>amount of work that's done in this region with these kind of projects is going up. And we need as many trained people as possible, trained to the highest standard, the standard we have today.</p>	
<p>I've studied the NEC and the RCW, WAC. And the more that we water down our licenses, the more mistakes are going to happen on job sites. HVAC technicians considering themselves electricians make many mistakes that I've had to fix. The more that we split this up it becomes a slippery slope. When we water down our licenses, we start to make mistakes. We start to put convenience before safety. Safety is like the number one concern when it comes to electrical systems. It causes so many problems: Money, deaths, injuries. People --you know, fires. I think most fires in the U.S. are started by electrical issues.</p> <p>There's a lot more to installing disconnects and line voltage than one might think. It might seem simple if you look at it, for instance, what's in view. But it connects to an entire system that is complicated and has to be well-known, as well as by an experienced technician installed correctly and safety.</p> <p>I think this is all pretty ridiculous that we are even considering watering this down and taking convenience over safety. You know, our NEC is thick. There's a lot of codes in it. They're all very important. They all come from accidents, injuries, deaths, fires. There's reasons why those codes are in there. And there's so many things to consider when installing a disconnect.</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>It just makes more sense to have a clear line between this is our work and this is their work. And when it comes to safety over convenience, it's just a no-brainer. People should be trained on one particular part.</p>	
<p>Honestly, I had no idea that the integrity of the WAC, which is our number one document for safeguarding safety in the state was under attack to make it convenient for companies to make a little bit more money or save a little bit more time by having an untrained non-specialist installing critical electrical components and branch circuits.</p> <p>So electricians, like the WAC itself, are here to carefully make sure that safety is the end result of whatever it is that we're installing. And a disconnect is no joke.</p> <p>Now, I understand and I appreciate the gentleman from Idaho calling in on the status of Washington state safety regulations. But asserting that just anybody can install these disconnects flies in the face of my personal experience as an electrician.</p> <p>Does anybody -- is anybody able to confirm looking at it that the wire gauge that got sent out is correct for the circuit? Is just anybody able to identify that the components are -- have the correct ratings before we install them? Are the terminations going to be torqued correctly, do things with correct equipment just out of anybody's van? Or is that supposed to be a trained specialist who is correctly trained and correctly equipped to perform the protocol? You know, what happens when one of these disconnects gets shipped out and it's skewed and the thing comes with an optional</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>grounding switch that looks like you should install it? Is that going to get installed correctly by an HVAC person, who's trying to fit it into the job and trying to do things the way it looks like it should be installed? Or do you need to be a trained electrician with the knowledge of safety and the NEC code book to make sure that this equipment -- or this circuit's being installed correctly?</p>	
<p>I've served on the last two TACs. This particular one on WAC 296-46B-920 was very contentious at the last TAC meeting. This is nothing but scope creep. It was brought up during the TAC that it was scope creep. It didn't pass overwhelmingly.</p> <p>One of my greatest concerns with this is this is a life safety issue. All the representatives of the product continue to say that it's a proprietary issue and that only they are trained to do it. Well, they might be trained on their specific product. But we're -- 01's and 02's are trained on all aspects of the electrical industry.</p> <p>06A's are not licensed to do this. Their pass rate is terrible on the state. Their state exam is 18 percent the first time through and 24 percent on a second time. That's not a proved standard, in my opinion, and through our JATC, that represents the southwest Washington. So I'm highly opposed to this.</p> <p>We do know that the state Electrical Board denied it. So I am more than curious of how it was brought back to life after the conscientious issue during the TAC and the Electrical Board killing it.</p> <p>Every time the TAC committee meets, there's more scope creep from the 06A's. But none of their training increases. So I don't see</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>how they can possibly claim that they're trained. We don't see any standard changes for that specific licensing group.</p> <p>So I'm highly opposed to this and would urge the non-acceptance of this. Thank you.</p>	
<p>I remember when mini-splits came out, ductless units. And, you know, there was a lot of confusion in the industry. And I've seen it change a lot over the years. There's quite a few confusing aspects on both sides I think.</p> <p>But in the beginning, the wire was supplied with --looked like speaker wire. And they were letting that install. Even the electrical inspectors were passing that off. It was years until one of the electrical inspectors called it, "Oh, it's got to be a TC cable. You know, and this is before even the electricians knew about this type of systems.</p> <p>You know, I've been a 06A since I think 2011. I've been a 01 for five years now. This continuing education that we have to go through for even 06A, you know, the apprentices have to go through the same training, you know. It's not specific when we go to a CEU class that this is 06A only. This is not HVAC only. It's not thermostat wire. Everybody calls it low-voltage license, like thermostat wire. It's your HVAC license.</p> <p>I'm sorry but I'm an electrician. I went through the same stuff that all them did, the 02 admin. I did the 01 admin. That's the same information. There's a lot of the trainings that we don't get on the job site that they do, you know, that's specific to what we do. But in</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p> <p>The statement that 06A electricians can replace a disconnect like for like is not consistent with what is allowed for 06A electricians in WAC 296-46B-920(2)(f)(iii)(C) that only allows them to repair, replace, or maintain the internal components of the HVAC/refrigeration equipment disconnecting means... .</p>

the same sense, they don't get the same training that we do with these ductless units and the technology.

It's a control wire and it provides the small amount of power needed to run the fan motor on the indoor unit. It's not a heat strip. We're not talking scan circuits. We're not talking -- I could probably grab the end of those wires and probably wouldn't do a whole lot.

But the safety aspect of it is we go through the same safety training running those wires as we do a thermostat wire or changing a disconnect out. And we're not looking to run all the electrical in the house. We're not asking to run the circuit to the heat pump or put on that new disconnect.

I believe that currently I can replace the disconnect like for like. I can replace components like for like. The 06A was really brought out for me to disconnect the 120 volt power from the furnace, change my furnace out, and reconnect it back up without calling an electrician in to hook up a 120 volt circuit or put in an outlet. I can't put in an outlet as a 06A. I can't modify the circuitry. There's still limitations to that.

But this control wire, power wire -- it's a combination -- part of that confusion is, "It's really hard. It's really easy." It's the same as running a branch circuit for anything else as far as pathways to safety, where a conduit has to be, fill, limits, all that stuff. But it also is a signal wire.

And if you just tell an electrician, you know, "It's a low amperage and I need a 14/4 or a 14/3 with a ground," manufacturer recommends a 14/4 stranded or a 16/4 stranded. And there's a 16/2 shield that we use for different systems. There's a combination of different that we use at Mitsubishi, and all the other brands do as well. But the electricians don't even understand all the way how that works.

And "We'll put a larger wire in. Let's put a larger wire in. We'll be covered." That actually causes disruptions in our signal. And now the HVAC technician is coming back later, costing money and customer money because we're telling them, "It's The wrong size wire."

In a new build, they gotta call the builder. He's gotta call the electrician. Electrician says, "I ran a big enough wire." It is a lot of confusion. But the wires, depending on a specific size, because the signal for our system travels around the outside of it, if that's larger, it gets disrupted and the unit won't work. If there's a splice in it and we just wire that in the junction box one, two, three spots because using wire or because that's how we got our power over there, that causes disruption and won't work. We gotta have a whole new wire ran.

Cost limitations -- we're talking about trainings. On the same hand, if HVAC guys, 06A's need more training in branch circuits, I mean I'm all about better training for myself, you know, but if that's a -- the underlying thing, we have the same safety standards. We have the same electrical continuing education. I still have to renew my

license every three years, both of them, you know. It's the same kind of training we go through to get -- excuse me -- to get that.

On the same hand, the electrification, everything is getting powered up, if we don't have enough people everywhere -- you know, I mean the electricians are shortage. The HVAC guys are shortage. And if we're out doing repairs because of miscommunication or misinformation on the training because we didn't run the right size wire, all these different aspects, we're definitely going to be shorthanded trying to keep up with everything.

I was just trying to hit on a couple of points that I had noted down. One thing I do want to mention, this branch circuit, we're not looking to rewire houses. We're looking to run this single branch circuit for units, which is a control power cable. You can check almost all manufacturers across the board. The indoor unit most of the time is less than 5 amps. You know, we're not running 10 gauge wire, 6 gauge wire, none of that. Some of its 16/4. We're running 1.2 amps on a lot of these ductless wall mount units. What we're trying to do is very close to signal wiring almost.

I wanted to say, too, that, you know, this residential license. And I understand, you know, 01, you know, if I had the opportunity and was an electrician to become a 01 in a company, I would love to do that. I respect what you guys do and the knowledge you guys hold. But to say that what we're trying to do here and at this portion of the NEC is a disgrace to the electrical code I think is

kind of overboard. I think what we're doing here is trying to work together to become and be part of everything.

And again, no disrespect, but the 01's aren't even working on these wires and what we're trying to add to. We're not trying to let 06A's go in and wire a six-story condo or a downtown Seattle skyscraper, you know, even a grow op or a convenience store, any of that stuff. We're not trying to do any of that. This is for limited multi-family in our residential homes to get people heat. And honestly, it's your family. It's my family. It's the Chair's family. Those are the people we're taking care of. We're residential, 06A's are residential license primarily. So we're not trying to take any work from anybody. We're trying to help build society and be part of the growth.

And, you know, I'm all about more training. I do see, you know, the aspect of we're not adding more training. You know. There's quite a bit of training that goes in and there's quite a bit of knowledge it takes to become an 06A. There's technically 4,000 hours of on-the-job experience with another 06A or higher doing that type of work before you can even be valid, eligible to take the test.

And, you know, the test rates and stuff like that, you know, how 06A pass rates weren't that high -- I mean I didn't get the numbers there -- but, you know, I took the test. And to be honest with you, when I went in there originally -- I'm doing HVAC work all the time, working with an 06A; we're changing disconnects, doing stat wire - - I wasn't expecting tray cable raceways and fills and -- you know, there's a lot that's on that test that I honestly didn't work with.

I've done electrical at some companies since then and we do electrical at our company now. We have an 02. We do a lot of residential and, you know, so we do more of that.

<p>So I can see why the training -- the pass rates weren't as high. But, you know, we still -- we put in the work. We put in the training.</p> <p>And safety, believe it or not, is our number one goal. You guys got wire safety. We've got blue pipe, exhaust. We got condensate drain, which I've heard and seen bad scenarios with condensate drains and safety. We have our electrical safety. We do gas piping safety, refrigeration. We have a specific refrigeration license with the city of Seattle to make sure we're safe with refrigerant. So safety is everybody's number one goal here. Number two is provide for our families and grow the world.</p> <p>So I think I've taken enough time here. But I really wanted to put out, you know, we live this. We're not just trying to add crap to the list, you know. We do the training and we put in the work. And I believe we deserve the right to be able to do that, you know.</p> <p>And honestly, if you guys had questions about how the wire works, you know, glad to help. We got lots of schematics and diagrams from the manufacturers that explain how the wire travels around and how that works with the system and why the specific wire size and no splices and all that is a big factor. And it's a little bit different than your typical wiring.</p>	
<p>I'm here to oppose the change in the 06A to include the installation of the cabling system for the split mini ducts and also for the disconnect.</p> <p>I've been in the industry for about 30 years. I've been an MEO 1 for 20 at the end of this month. I come from the industry. I served</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p>

an apprenticeship. I'm one of those individuals that would be displaced and currently do that work.

I also was on the TAC. It was noted properly that it didn't come out of the TAC with full support. It was a very contentious issue. This issue has been brought up several times. Scope increases in the HVAC industry has been debated for years.

It has to be noted that the original scope, the creation of the certificate, was limited to components within the HVAC equipment, both line and low voltage and low-voltage control systems that do not exceed 3/4's.

Through the years, the expansion of the HVAC has never addressed training. It's never addressed the on-the-job hour trainings that were allowed when this original scope was put together. Ductwork installation is allowed to be counted as non-electrical hours but it counts as electrical hours towards the 4,000. As the expansion of the HVAC scope increased, there was never any readdress of how many electrical hours should be included.

The testing: It was noted that there's a terrible pass rate. In the board minutes, it was noted that the failure rate was 84 percent and 74 percent, meaning that the first time pass rate was 18 percent and the second was 24.

It was noted from testimony online that the individual that took the test didn't know what was going to be on the test and wasn't fluent with the code. The inclusion of branch circuits must mean that

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

there will have to be new code questions that will be added. There will have to be more sections of the code that the HVAC folks will have to be fluent and proficient in. And that has not been addressed. So with a pass rate of 18 percent first time and a pass rate of 24 percent, I can only imagine that that pass rate is going to get less or worse.

A 01 electrician or a 02 electrician has full on-the-job training and has a lot of experience. So when they are doing these installations, they see other things. They see safety issues. They see things that maybe a manufacturer didn't train them to see when they're in there.

Also, it didn't come out -- like I said, it didn't come out of the TAC with full support so it moved to the board. The board is a cross-sectional cut of industry leaders appointed by the Governor. It's a sounding board. It's a very good sounding board of the industry. There's a debate with the minutes where it came out with no support. This proposal was hashed over. Some of the same safety issues were discussed. Some additional safety issues were discussed. And at the end of the day, the board made a recommendation or at least all the comments were not to move this proposal forward. Like I said, the current installations are done by 01's and 02's. Searching the L & I database confirms that there are plenty of contractors to service this. In fact, there are contractors that have become compliant with these requirements. They have trained their individuals. They've become 01. And in some respect, you have stranded capital or stranded human assets where they have trained and invested into doing this work.

And it disenfranchises 22,508 current certificate holders between 01's and 02's that could do this work to appease 3,173 HVAC certificate holders. And I think that's why this change prioritizes convenience over safety and will displace current contractors, workers, and investments made by complying contractors. And that is subsection 9 that I spoke on.

Subsection 10 also has the disconnect in there. And we're opposed to that for several reasons also. But mainly the reason is that as this conversation moves forward over 20 years, the industry has continued to ask for scope increases outside of what was negotiated at the beginning.

And there has not been any address on training. The answer to training is, "We get our training from our manufacturers."

Well, that training doesn't allow them -- or doesn't help them to pass the code. Washington state cares about the installation and safe installations for consumers at the end. Some of these go through places of assemblies, schools, and other things if they're working outside of a residential space. So safety is of utmost concern.

We have a system that works. We've debated that system that works. We've had industry leaders that have recommended off a Governor's board not to accept this. And I would ask that this not move forward with those inclusions.

One thing I noticed, if I heard correctly, was that there was no small business impact report done. That's a little concerning to me

Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope

because a lot of our electrical contractors that are doing this work are small businesses and they employ general journeymen electricians. So I would like to oppose the proposed rule changes both as a representative standpoint of losing work for my members and also as a journeyman of over 20 years.

I started installing mini-split systems back in 2006. I've installed these systems in multiple states. If I had to guess, I've probably installed between 100 to 500 systems.

You know, sometimes when we coordinated the efforts with the HVAC company, I could do a mini-split system in about two hours. So I don't know where it's taking three and four days to do these, because I literally used to do three or four a day.

As far as installing disconnects, you know, there's a lot that goes into a disconnect. Do you have a service outlet within the appropriate distances and all the requirements of that? I'm sure they're kind of concerned with -- you know, there's a lot of talk of that we should expand the license and everything, and there's requirements to that expansion. People have brought up concerns of training. I have a concern with enforcement. It seems like the states are very difficult in enforcing the licensing they have. And now they're looking at possibly expanding more licensing. And there's not near enough enforcement to even cover what they're enforce -- what should be enforced today.

So with that, I have to oppose all -- any changes, both as a representative of IBEW and as a journeyman electrician with

of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

<p>several years of residential, low-voltage, industrial, commercial experience across the board.</p>	
<p>I stand opposed to this rule change. From my own experience -- I worked in the field for 10 years. I did hundreds of mini-split installations all around southwest Washington. And some of those calls had to do with fixing improper installations that were attempted by 06A's already, whether it had to do with not protecting that cabling properly once it left the building to the outdoor unit, along with multiple other issues.</p> <p>And saying that those holding a 01 license or a 02 license are just generalists, yeah. Do we have to know the whole code? We have to know -- we have to know a lot of it. But we are also trained, both on the job and in our classes, on how to do these installations properly.</p> <p>Where I was working, we had training from manufacturers how to do this. And there never seemed to be an issue with getting a licensed 01 or 02 electrician to do this work. And what it sounds like is -- if people are waiting on it, I mean it sounds like call around and find someone to do it that is currently licensed and able to do it under current state law.</p> <p>These are -- it is -- there is line voltage running on some of those cables, depending on the system. And saying that just because it is low amperage that it's not a safety issue, any amount of electricity causes a safety concern if not done properly.</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

<p>Part of the work I did in the field was also having to do with restoration work, fire loss, water loss, that kind of thing. And I've worked on jobs where fires had happened because somebody who did not have a 01 or 02 attempted these installations and it failed and caught a building on fire. Just saying that it's low amperage is a moot point because it doesn't matter. Any electricity can cause a safety concern if not done properly. Doing many of these installations and teaching our apprentices how to do this stuff, I mean it was standard practice. That's what we did. We did a lot of this work. And having this scope creep, I don't see, in my mind, how it helps anybody if there's hours that can count towards an 06A that are not electrical work, then I don't know how it could be counted towards completing the training to get that license.</p> <p>But yeah, this is very concerning to me, especially with all the electrification coming. If these aren't done properly, I'm afraid of seeing more and more fires and property loss because -- because there seems to be this thought that just because it's a low-power cable, that it's not a big issue. This is a very big issue, in my mind. And it's -- it's a big issue that -- how it's working -- how it's working -- I don't see the reason why we need to change it if it's already working.</p>	
<p>I'm in opposition to WAC 296-46B-920. I was also a part of the 2023 Technical Advisory Committee. And I chose to go through a five-year apprenticeship so that my 01 license -- I've been a journeyman wireman in Washington state for 22 years -- I chose to go through the five-year apprenticeship so that my license would encompass all electrical bones of the industry. And I also passed my test on the first go.</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p>

<p>Being part of the Technical Advisory Committee, the history behind that is the historical standard is not to advance any items out of the Technical Advisory Committee that are in controversy. This was a very contentious issue and narrowly passed the Technical Advisory Committee. And the IBEW went on record to be in opposition to this.</p> <p>Traditionally the Department follows the guidance from the Governor-appointed Electrical Board. And in the October meeting of 2023, the Governor-appointed Electrical Board voted unanimously to reject this. And then the Department elected to include this proposal, in spite of the unanimous rejection from the Electrical Board. I kind of question why that is.</p> <p>Anyway, there's been a lot of talk about training. There's a lot of talk about safety. And like I said, I took the five-year apprenticeship so I can do this work. If there's more training to be done for a 06A to do this work, then they can go back to school, get the training, get the license that is -- allows them to do this work. And I see no problem with that.</p> <p>But I want to go and say IBEW Local 73 is in opposition to this rule change. Thank you.</p>	<p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>
<p>I want to be respectful of the – not being redundant in my comments. The panelists so far that have testified in opposition did a great job of capturing those with regards to safety, testing, training. And the process of actually how we ended up with this hearing today seems a little weird.</p>	<p>Thank you for your testimony. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with</p>

<p>But really just what I wanted to speak to is what I know the most about. You know, during my career, I didn't actually install these. I know a little bit about them with our members and our contractors. And one of my concerns is with the 01's and the 02 folks that we have doing these installations now, our members and our contractors that do this work are qualified to, you know, obviously do this piece. But also they're in there -- when they're in there, they're catching things that maybe a 06A would not be looking for because they're in there doing their niche piece, which is what this is. It's not a -- they're not trained in the same scope that our electricians are, a 02 or a 01.</p> <p>So I think there is a line there that needs to be acknowledged that along with just this piece we're talking about, there's other safety things that come up in installations. No installation is ever the same. They're not necessarily cookie cutter unless we're talking about a track house or something situation. Every service call, repairs that happen that you've heard about from previous folks. I think there's a real advantage to keeping the status quo of not changing this proposed rule at this time. I understand the industry's changing and -- but I don't think this is the way to do it and I think it needs to go through more process. And I personally am opposed to this change along with IBEW 48 is opposed to this, for the record.</p>	<p>stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>
<p>I am emailing comments to you today intended to reflect my opposition to the proposed changes to WAC 296-46B-920 (F)(5) .</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for</p>

The significant and critical purpose, as I understand it, to WA restricting/ limiting electrical installations and repair based upon the degree of competencies the installer has (documented classroom and on-the-job training hours), and exposure to electrical hazards, both to the electrical worker - qualified person - and those who occupy structures where these types of HVAC equipment are installed and repaired / replaced is to do just that - LIMIT the amount of work that a restricted license holder can perform and rely upon an 01 General JW to perform tasks that have a higher degree of risk.

I believe the push for these changes is purely a matter of convenience for HVAC contractors. This is no different to our electrical contractors employing 01 license holders who are wanting to be able to pull / replace the exterior electrical consumption meters when performing a residential panel replacement however, we are not deemed “qualified” at the same degree as Utility workers (linemen) and therefore have to plan and coordinate schedules with the serving Utility to have them come out and perform disconnect / reconnect services so then we can perform the work our license allows.

There are plenty of statistics to reinforce NOT moving forward with this proposed language.

Testing:

- HVAC terrible pass rate
- During the board testimony, it was noted that the first time pass rate for HVAC workers passing the electrical state

conversations with stakeholders and consideration in possible future rulemaking.

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

<p>exam is 18% and second attempt is 24%. The HVAC industry is not fluent or functional in the NEC.</p> <ul style="list-style-type: none"> • Current installations are handled by 01, HVAC training does not include branch circuit training. • Searching the LNI database confirms that many HVAC contractors are complying with the current law and holding a 01 contractor employing 01 electricians. 	
<p>IBEW Local 112 in Kennewick, WA would like to go on record as opposing the proposed rule change that includes the mini split ductless branch circuit installation as well as the other pieces of the HVAC scope expansion in regards to WAC 296-46B-920 (F)(5).</p>	<p>Thank you for providing comment. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>
<p>I am writing to express my opposition to the proposed changes to 46B-920(f)(5) WAC 296-relating to Mini Split Ductless units and other HVAC scope changes.</p> <p>As you know the primary purpose of electrical certification requirements is safety, for homeowners and the public at large.</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p>

<p>This scope expansion would not require additional training to ensure proficiency with the NEC. This lack of proper training is highlighted by the extremely low pass rate for HVAC workers who take the state exam.</p> <p>I also think it's also important to recognize that many (most) contractors are working within the current framework and doing so successfully. The types of installations involved are often in difficult to access areas, making it all the more important that they are completed by trained individuals.</p> <p>I believe these proposed changes to be unnecessary and detrimental to the standards established for Washington State electrical installations. It's my understanding that the State Electrical Board reached the same conclusion when they considered the consequences of this proposed change. I feel that the changes being discussed are unnecessary and detrimental to the consumers in the State of Washington, those business owners who have structured their businesses successfully within the current framework as well as the certificate holders who have invested their time and efforts into becoming 01 and 02 certified.</p> <p>It is for these reasons that I ask the proposed changes not to be adopted.</p>	<p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>
<p>I am writing to express my opposition to the proposed rule change for the HVAC scope changes.</p> <p>My biggest concern is safety. With extremely low pass rates for HVAC technicians who take the NEC exam, and without any</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for</p>

<p>additional training, I am worried that we would not be addressing the issue of lack of proficiency with electrical installations.</p> <p>The "handy-man" model of allowing people to perform work outside of their scope, is something that we have historically gone away from, because a lack of specialty can create hazardous conditions. Scopes ensure proficiency so that safe installations can be ensured.</p>	<p>conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>
<p>I want to express my concern and opposition to the changes to the 06A scope of work as presented in WAC 296-46B-920 (F)(5).</p> <ol style="list-style-type: none"> 1) These proposals moved forward without overwhelming support from the Technical Advisory Committee, and zero support from the State Electrical Board. A minority of contractors (less than 11%) are pushing these changes against most stakeholders in the electrical industry. 2) The HVCAC industry has presented similar proposals 3 different times, and each time they were told that they need to increase their training. So far, no additional training has been required nor included in their apprenticeship standards. 3) The proposed changes do not have enough guard rails in place to protect the public. It would be one thing to only allow installation of conductors between the compressor and the head unit, but now we are adding installations of 	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

fused disconnects, wiring to externally mounted surge protectors and condensate pumps. Most 06A wiremen have not received adequate training on cable and conduit installations let alone the ground and bond issues that must be address when installing a fused disconnect. The proposed changes would allow 06A wireman to install 250 volt, 20 amp branch circuits from the HVAC compressor to the indoor head unit with no restriction on cable length. Some of these units can supply upwards of 9 individual head units from a single compressor.

- 4) These changes, if approved, would allow all certified 06A to do this work, the good installers and the bad installers. To quote Wayne Molesworth from the October 26, 2023 Electrical Board Transcripts “I feel compelled to speak a little bit about the pressures that we were under when looking at this. And this has been something that our management, you know, has received phone calls about from representatives like Larry has mentioned before. I definitely wanted you guys to have some input on this, but, you know, not very often are we split in the Department over things like this, but I worry about this. Because No. 1, we are changing the scope of work that they are more than capable of getting through examination and license, right? They can become 02 and 01 contractors, just like Chairman Jenkins said. And this is going to sound a little broad, but I don't mean it to be, because it's probably limited to a small scope of contractors, but we have to remember when we're making law and rule that when we pass something, it will apply to everybody. And not everybody, like Larry says, is

<p>competent because of an examination. And not everybody is making sure that their staff are getting the proper supervision and training during the installations that we have.”</p> <p>5) The proposed scope changes are not needed, many HVAC contractors are licensed as General Electrical, and they employer certified EL-01’s and EL-02’s to make the necessary installations. The HVAC industry tells us that these installations need to be approved so they can be more efficient. However, they still need to utilize EL-01 and EL-02 wireman, since an EL-06A cannot run the main power to the HVAC equipment. Thank you for your consideration.</p>	
<p>I am writing to you today to oppose the proposed rule changes for mini split ductless units and other HVAC scope changes.</p> <p>Traditionally the department follows guidance from the governor appointed electrical board with respect to rule making and this was unanimously rejected by the electrical board at the October 2023 meeting. This issue has been addressed multiple times and the electrical industry has yet to support any changes. I don’t see why we should displace current contractors, workers, and the investments made by complying contractors and we should not change safety rules to meet an HVAC contractor’s business model.</p>	<p>Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.</p> <p>We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.</p> <p>When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.</p>

The C.E.W.W. is in strong and overwhelming opposition to WAC 296-46B-920(F)(5), Proposed Rule Changes for mini-split ductless units.

We are in opposition to the proposed rule change for a multitude of reasons. When looking at this issue from a technical perspective, the proposal should not have advanced to the public comment step of the rulemaking process. Without industry approval as indicated by narrowly passing out of the “TAC” Technical Advisory Committee and being unanimously opposed by the Electrical Board we do not see how or why the proposal continues to be considered. When considering documented comments of the TAC, Electrical Board and public comments as an aggregate, it is apparent the Department is attempting to modify WAC 296-46B to expand the work processes allowed under the EL06A certification to satisfy a desired business model of some HVAC contractors and not the intended purpose of safeguarding the citizens of the state from the hazards associated with electrical installations and the use of electricity.

And when looking at this issue from a business perspective, we are opposed to the proposed rule change based on the inevitable displacement of work from the more than 22,000 EL01 and EL02 certification holders currently performing this work in question and shifting it to the approximately 3,000 EL06A certification holders. This has the appearance of an effort to grab work scope to expand the HVAC industry.

In closing I want to stress the strong opposition by the C.E.W.W. and urge Labor & Industries not to adopt WAC 296-46B-920(F)(5),

Thank you for providing comments. L&I removed the allowances in the proposed rule that would have increased the scope of work allowed for 06A HVAC/refrigeration specialty electricians rule to allow more time for conversations with stakeholders and consideration in possible future rulemaking.

We base this decision on advice received from a Technical Advisory Committee, the Electrical Board, and public hearing testimony. It is evident that stakeholders need more time to discuss concerns and explore options for consensus before making any changes.

When warranted, L&I will initiate a separate rulemaking to address the 06A scope of work.

<p>Proposed Rule Changes for mini-split ductless units. There is inadequate training requirements of the EL06A certification to consider this proposal, which is evident in the extremely low first-time pass rate of HVAC workers for the EL06A certification. The inadequate training and extremely low pass rates is evidence that this proposed change if adopted will create a safety hazard for the public and personnel. This proposal should not be adopted by Labor & Industries based simply on a procedural basis that it narrowly moved out of the TAC and was unanimously opposed by the Governor appointed Electrical Board. AS technology in the electrical and HVAC industries have evolved business has adapted to the evolution and maintained compliance with the necessary electrical laws and rules of the state. Electrical rules should not be modified to meet the narrow desires of business, but rather business should be required to meet the rules.</p>	
<p>Comment: Neutral to WAC 296-46B-920</p>	<p>Response:</p>
<p>I was a member of the L & I TAC this year, as well as this is my fourth cycle that I've served on the TAC. So I really appreciate that. And, you know, I cover the 11 western states for NEMA.</p> <p>And I would like to say as an aside that I'm a 40-plus year member of IBEW Local 234, which is in Castroville, California. So I bring you greetings from northern California. And I was also an AHJ for 25-plus years for several different jurisdictions in northern California. So I'm very, very aware of electrical safety and the requirements in the NEC.</p> <p>And I don't -- you know, I don't have any specific comments on the licensing issues here in Washington state. But I would like to say</p>	<p>Thank you for your testimony.</p>

that I applaud Washington state and the Department of Labor and Industries for -- you guys care about electrical safety. And there's some states -- I'm not going to name any other states -- but there's some states that don't really care. They'll cut stuff out of the electrical code because it's going to cost the home builders an extra dime or whatever. Washington state does not do that. You all really care about electrical safety.

And again, I don't have any specific comments about licensing issues here in the state because that varies from state to state so much. But I would like to say that I really appreciate Washington state for the way you all care about electrical safety. And I'm happy to support that. That's what I do for NEMA. And you all are doing a great job, and keep up the great work.