



STATE OF WASHINGTON
DEPARTMENT OF LABOR AND INDUSTRIES

Prevailing Wage
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360/902-5335 Fax 360/902-5300

September 13, 2012

Miriam Israel Moses, Executive Director
REBOUND
2800 First Avenue, Suite 216
Seattle, Washington 98121

Re: KVA Electrical – Maintenance Work on Electrical Substations

Dear Ms. Moses:

Thank you for your correspondence of September 12, 2012 and the letter from KVA Electrical attached to that correspondence, as well as your letter of September 10, 2012, alerting me to the potential for confusion in the industry regarding the proper prevailing wage classification for certain maintenance work performed on electrical transmission or distribution systems. If there is confusion, I certainly appreciate the opportunity to provide clarity.

This is a determination of the industrial statistician regarding coverage of the referenced work under Washington's prevailing wage laws and is made pursuant to RCW 39.12.015. References to the Revised Code of Washington (RCW) and the Washington Administrative Code (WAC) are included. Such determinations apply to all work subject to chapter 39.12 RCW, including any work executed at the cost of a Public Utility District (PUD). See the attached document, "*Prevailing Wage Determination Request and Review Process.*"

The department maintains scope of work descriptions which serve as guidance regarding which prevailing wage rates are required for certain work activities. The scope of work for Power Line Construction Electricians, [WAC 296-127-01320](#), begins with the following sentence:

For the purpose of the Washington state public works law, chapter [39.12](#) RCW, power line construction electricians erect, maintain and repair transmission poles (whether built of wood, metal or other material), fabricated metal transmission towers, outdoor substations, switch racks, or similar electrical structures, electric cables and related auxiliary equipment for high-voltage transmission and distribution power lines used to conduct energy between generating stations, substations and consumers.

I have reviewed the work descriptions and correspondence you referenced regarding various bodies of work related to transformer maintenance and repair. I also reviewed other recent communications as well as historical correspondence as far back as the 1970's when transformer flushing was a relatively new technology.

Miriam Israel Moses
September 13, 2012
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Clearly, this maintenance work, or any work on electrical transmission or distribution systems between the generating stations and consumers, must be paid at the prevailing wage rate for Power Line Construction Electricians. The fact that the work is performed on a system that is "off-line" or "de-energized" does not change the application of the Power Line Construction Electricians scope of work since no such distinction exists in WAC 296-127-01320.

If further questions were to arise regarding work that is peripheral to electrical transmission or distribution system work but also related to that work, such as demolition of equipment already permanently removed from service, or the hauling away of demolished material from these projects which may also include the disposal of hazardous materials, please contact me with complete descriptions of the work and I will respond with advice regarding the correct labor classifications for prevailing wage purposes. However, as mentioned above, maintenance and repair of transmission or distribution equipment, including and especially transformers and other equipment located in substations, is paid at the Power Line Construction Electricians prevailing wage rate.

I hope this is helpful. If you have further questions, please let me know.

Sincerely,



L. Ann Selover
Industrial Statistician
Program Manager

Attachment

cc: Russell Darby, KVA Electric, Inc.

Prevailing Wage Determination Request and Review Process

RCW 39.12.015 is the basis for requesting a determination, since it provides:

All determinations of the prevailing rate of wage shall be made by the industrial statistician of the department of labor and industries.

If you disagree with a determination the industrial statistician provides, WAC 296-127-060(3) provides for a review process:

(3) Any party in interest who is seeking a modification or other change in a wage determination under RCW [39.12.015](#), and who has requested the industrial statistician to make such modification or other change and the request has been denied, after appropriate reconsideration by the assistant director shall have a right to petition for arbitration of the determination.

(a) For purpose of this section, the term "party in interest" is considered to include, without limitation:

(i) Any contractor, or an association representing a contractor, who is likely to seek or to work under a contract containing a particular wage determination, or any worker, laborer or mechanic, or any council of unions or any labor organization which represents a laborer or mechanic who is likely to be employed or to seek employment under a contract containing a particular wage determination, and

(ii) Any public agency concerned with the administration of a proposed contract or a contract containing a particular wage determination issued pursuant to chapter [39.12](#) RCW.

(b) For good cause shown, the director may permit any party in interest to intervene or otherwise participate in any proceeding held by the director. A petition to intervene or otherwise participate shall be in writing, and shall state with precision and particularity:

(i) The petitioner's relationship to the matters involved in the proceedings, and

(ii) The nature of the presentation which he would make. Copies of the petition shall be served on all parties or interested persons known to be participating in the proceeding, who may respond to the petition. Appropriate service shall be made of any response.

Miriam Israel Moses
Executive Director

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REBOUND

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September 10, 2012

L. Ann Selover, Industrial Statistician
Program Manager, Prevailing Wage, L&I
PO Box 44540
Olympia, WA 98504-4540

Dear Ms. Selover:

Re: Request for Determination
Transformer Maintenance in Electrical Sub-Stations

This letter requests a formal determination from your office regarding the correct scope of work for the maintenance of transformers at substations. I have attached two letters from KVA Electric which describe this work in great detail.

As you may recall, during L&I's prior review of this question, there were two email clarifications set forth by two different Industrial Relations Agents regarding the Scope of Work that should be applied when workers are performing the specific maintenance work on transformers that is in question.

One L&I email "scope clarification" stated that the work could be performed under the Laborer's Scope of Work, positing that transformers were no longer "electrical equipment" when taken off-line for maintenance because they were no conducting electricity. The other scope of work clarification stated that, irrespective of the specific work performed, according to the language in the Scopes of Work, the applicable Scope was that of "Electricians – Power line Construction," which states:

WAC 296-127-01320 - Power line construction electricians:

For the purpose of the Washington state public works law, chapter [39.12](#) RCW, power line construction electricians erect, maintain and repair transmission poles (whether built of wood, metal or other material), fabricated metal transmission towers, outdoor substations, switch racks, or similar electrical structures, electric cables and related auxiliary equipment for high-voltage transmission and distribution power lines used to conduct energy between generating stations, substations and consumers. [All emphases added]

In our reading of the scopes, we agree with the latter clarification. The work described in KVA's detailed descriptions is virtually a direct match to the Scope of work for Power-line Construction Electricians. To the best of our knowledge, there is no other scope that so perfectly describes the work in question. Hence, we believe that the appropriate minimum prevailing for this work would be the wage established under that scope.

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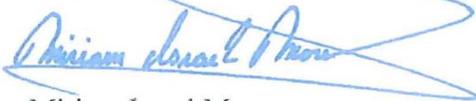
<http://www.rebound.org>

Fax: (206) 443-6914 or 1-866-754-4500

We have asked for a formal determination from your office so that the discrepancy between the clarifications of the two Industrial Relations Agents may be finally resolved, and all projects can be bid using the appropriate scope and related prevailing wage rate.

Thank you in advance for your prompt attention to this matter.

Sincerely,



Miriam Israel Moses
Executive Director

cc: Russell Darby, KVA Electric
Kevin Duncan, KVA Electric
Paige, KVA Electric
Rick Strait, Business Manager, IBEW, Local 77
Elaine Kinnear, IBEW, Local 77
Tim Silsbee, Lead Investigator, REBOUND
REBOUND Board of Directors

Enclosures:

1. KVA Description of Work
2. KVA Request for Determination



November 7, 2011

Ms. Miriam Moses
Rebound
2800 First Avenue, Suite 216
Seattle, Washington 98121

RE: Washington State Prevailing Wage Work Definition Determination

Dear Ms. Moses,

We are requesting a formal determination of the work performed in an energized, partially energized or de-energized electrical substation and the correct labor classification associated with the work.

In an attempt to come up with the interpretation for the work being performed in a substation as a Power Line Construction Electrician 296-127-0132, I would like to address the following:

The scope of work for Power Line Construction Electricians already states that “maintenance or repair is covered for the work performed on transmission poles (whether built of wood, metal or other material), fabricated metal transmission towers, outdoor substations, switch racks, or similar electrical structures, electric cables and related auxiliary equipment for high-voltage transmission and distribution power lines used to conduct energy between generating stations, substations and consumers”.

WAC 296-127-01320

Power Line Construction Electricians.

For the purpose of the Washington state public works law, chapter [39.12 RCW](#), power line construction electricians erect, maintain and repair transmission poles (whether built of wood, metal or other material), fabricated metal transmission towers, outdoor substations, switch racks, or similar electrical structures, electric cables and related auxiliary equipment for high-voltage transmission and distribution power lines used to conduct energy between generating stations, substations and consumers.

The work includes, but is not limited to:

- The moving of men, tools, or equipment.
- The sorting, loading and moving of materials from the first drop.
- The handling, assembling and erecting of all necessary materials.



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- The trenching, digging, and backfilling of vaults, holes for poles and anchors (by hand or mechanical equipment), guying, fastening to the stub-in on concrete footings or pads, assembling of the grillage, grounding of all structures, the stringing and installation of transformers.

In response to Laura Hermans email dated May 5, 2011:

"Your question about work on four (4) transformers to drain the transformer oil, remove the temperature probe and inspect for the cause of leakage including the repair or replacement of the temp probe and oil replacement has been addressed in some prior inquiries (see messages cut and pasted below). As you can see, a transformer that is off-line and no longer in the electrical system would be treated in a different way than one that is on-line."

The description from the WAC 296-127-01320 above does not say that once a piece of equipment is energized or de-energized that it falls under the Power Line Construction Electricians classification. You cannot maintain and/or repair any equipment without it being de-energized. Even the moving of men, tools, or equipment is addressed in WAC 296. The sorting, loading and moving of materials from the first drop and the handling, assembling and erecting of all necessary materials is covered under the Power Line Construction Electricians, which is all de-energized work.

If we were to rely on the interpretation by Laura Herman, stated in her email dated May 5, 2011 (see above) one could say that if an item is not energized then anyone could erect, maintain and repair transmission poles (whether built of wood, metal or other material), fabricated metal transmission towers, outdoor substations, switch racks, or similar electrical structures, electric cables and related auxiliary equipment for high-voltage transmission and distribution power lines used to conduct energy between generating stations, substations and consumers. But I do not believe that is the intent if something is energized or de-energized.

David J. Soma addresses a similar subject about the inspection of wood poles in the link provided below. Even though the pole itself is not energized, it falls under the maintenance and repair of the **Power Line Construction Electricians**.

<http://www.lni.wa.gov/TradesLicensing/PrevWage/files/Policies/PowerPoleMaintenancePUD.pdf>

The first and most important is safety. The major safety concern that should be addressed on this issue is that even though the transformer may be de-energized the substation is still energized. There are specific requirements that WAC 296-45 addresses in order to take a clearance, lockout-tagout, and test and ground the lines and equipment. To fulfill the necessary requirements of WAC 296-45 laws requires a *qualified* person with proper training. To allow a laborer or any other non-trained person to walk into a substation is a violation of the WAC 296-45.



The State of Washington addresses the safety concerns for substations in WAC 296-45. Below are a few paragraphs that highlight some of the related articles to show that electrical work on any electrical system is hazardous and requires training. Training as a qualified workers cannot be achieved in a short period of time and typically requires three (3) to four (4) years in an apprenticeship to achieve a Journeyman license.

WAC 296-45-005 Electrical workers safety rules-Foreword.

The purpose of this chapter is to make the workplace of electrical employees as free from recognized hazards as reasonably possible. Following these rules may sometimes require that employee safety receive a higher priority than speed and work performance. These rules exist to provide employee safety, so employees are expected, in good faith, to follow the provisions of this chapter. This chapter isn't intended to be a complete job description nor is it expected that the chapter covers every hazard that an employee may encounter. When a hazard exists that isn't covered by this chapter, the leadworker and employees are expected, in good faith, to mutually discuss the hazard and agree how to perform the work with the greatest degree of safety.

The department of labor and industries is the sole and paramount administrative agency responsible for the administration and interpretation of this chapter and the Washington Industrial Safety and Health Act of 1973. If there exists a question as to the meaning of any provision of this chapter, such question must first be directed to the department of labor and industries and its authorized representatives. Experience has proven that the majority of injuries and deaths are preventable. Most injuries and deaths aren't due to defective equipment but are due to failure on the part of the employees and those in authority to observe safety rules and failure to use safety devices. In the last analysis, this chapter is a compilation of experience and common sense. Electrical safety requires that the work be properly planned, executed by the use of good judgment and under the direction of intelligent supervision.

WAC 296-45-015 Scope and application.

- (1) This chapter covers the operation and maintenance of electric power generation, control, transformation, transmission, and distribution lines and equipment. These provisions apply to:
- (a) Power generation, transmission, and distribution installations, including related equipment for the purpose of communication or metering, which are accessible only to qualified employees

WAC 296-45-035

“Qualified person or qualified employee” - A person who is familiar with the construction of, or operation of such lines and/or equipment that concerns his/her position and who is fully aware of the hazards connected therewith, or, one who has passed a journey status examination for the particular branch of the electrical trades with which he/she may be connected.

Note 1: An employee must have the training required by WAC 296-45-065(1) in order to be considered a qualified employee.

Note 2: (Apprentice) Except under WAC 296-45-25510(12), an employee who is undergoing on-the-job training and who, in the course of such training, has demonstrated an ability to perform duties safely at



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his or her level of training and who is under the direct supervision of a qualified person is considered to be a qualified person for the performance of those duties.

WAC 296-45 (4) The employer shall require the leadworker to observe and enforce all safety rules and shall furnish a copy of the electrical workers' safety rules to each employee who is covered by these rules.

(5) The employer shall appoint only competent workers to supervise other employees and those appointed shall be responsible for the safety of the employees under their supervision.

WAC 296-45-065 Training. Employees shall be trained and proficient in the safety-related work practices, safety procedures, and other safety requirements in this section that pertain to their respective job assignments. Employees shall also be trained in and proficient with any other safety practices, including applicable emergency procedures (such as pole top, aerial, manhole, and tree rescue), that are not specifically addressed by this section but that are related to their work and are necessary for their safety.

(1) Qualified employees shall also be trained and competent in:

- (a) The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment;
- (b) The skills and techniques necessary to determine the nominal voltage of exposed live parts;
- (c) The minimum approach distances specified in this section corresponding to the voltages to which the qualified employee will be exposed; and
- (d) The proper use of the special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools for working on or near exposed energized parts of electric equipment.

Note: For the purposes of this section, a person must have this training in order to be considered a qualified person

WAC 296-45-325 Working on or near exposed energized parts. This section applies to work on exposed live parts, or near enough to them, to expose the employee to any hazard they present.

(1) General. Only qualified employees may work on or with exposed energized lines or parts of equipment. Only qualified employees may work in areas containing unguarded, uninsulated energized lines or parts of equipment operating at 50 volts or more. Electric lines and equipment shall be considered and treated as energized unless the provisions of WAC 296-45-175 through 296-45-17565 or 296-45-335 have been followed.

(2) Except as provided in subsection (3) of this section, at least two qualified employees shall be present while the following types of work are being performed:

- (a) Installation, removal, or repair of lines that are energized at more than 600 volts;
- (b) Installation, removal, or repair of de-energized lines if an employee is exposed to contact with other parts energized at more than 600 volts;
- (c) Installation, removal, or repair of equipment, such as transformers, capacitors, and regulators, if an employee is exposed to contact with parts energized at more than 600 volts;



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(d) Work involving the use of mechanical equipment, other than insulated aerial lifts, near parts energized at more than 600 volts; and

(e) Other work that exposes an employee to electrical hazards greater than or equal to those posed by operations that are specifically listed in subsection (2)(a) through (d) of this section.

Note 1: One employee will serve principally as a standby person who must be so located that they may physically reach the other employee in the event of an accident either with their hand or with a hot stick twelve feet or less in length. The stand-by will be so positioned as to be able to observe the other employee, their bodily movements, and verbally warn of any impending dangers. In no case when working in pairs will employees work simultaneously on energized wires or parts of different phases or polarity.

(4) "Minimum approach distances." The employer shall ensure that no employee approaches or takes any conductive object closer to exposed energized parts than set forth in Table 1 through Table 4, unless:

WAC 296-45-475 Substations. This section provides additional requirements for substations and for work performed in them.

Washington State has come so far to ensure that workers are properly trained and that only trained and qualified workers are working on electrical equipment. De-energized equipment does not eliminate electrical hazards in a substation. A substation has many different power supplies: A/C voltages from 50 to 500,000 and D/C voltages from 12 to 240. It would be a detriment if the State of Washington would regress to allow untrained and unqualified workers to enter and work on any electrical systems, whether energized or de-energized.

The link below is from Washington State L&I showing the number of accidents from 2000 to 2005. By allowing untrained workers into one of the most hazardous locations can only lead to a higher rate of accidents.

<http://www.lni.wa.gov/Safety/Research/Files/ArcFlashHazardReport.pdf>

It would be hard to conclude that any work performed in a substation would not be covered under the Power Line Construction Electrician classification.

Sincerely,

Russell Darby
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