

## **WAC 296-46B-999 Electrical testing laboratory requirements.**

### **General.**

(1) This section describes the methods required to obtain recognition and accreditation of electrical product(s) certification and/or field evaluation laboratories by the state of Washington. This section provides assurance to the general consuming public that electrical products have been tested for safety and identified for their intended use.

(2) An electrical product is considered to be safe when it is either certified by a laboratory accredited by the department or labeled with a field evaluation mark by a laboratory accredited by the department.

(a) The department may declare electrical equipment unsafe if:

(i) The equipment is not being manufactured or produced in accordance with all standards of design and construction and all terms and conditions set out in the certification report for the equipment referred to in this chapter;

(ii) The equipment has been shown by field experience to be unduly hazardous to persons or property;

(iii) An examination of the equipment or of the certification report for the equipment shows that the equipment does not comply with all applicable standards; or

(iv) An examination of the certification report or the equipment shows that the equipment cannot be installed in accordance with this chapter.

(b) When the department declares an electrical product unsafe, the department will:

(i) Notify the product manufacturer and the appropriate testing laboratory in writing;

(ii) Notify the general public by:

(A) Report to the Consumer Product Safety Commission;

(B) A published article in the *Electrical Currents*;

(C) Internet web site posting; and/or

(D) News release.

### **Accreditation - General.**

(3) The department's chief electrical inspector's office reviews requests for accreditation or evaluation. Applicants must submit supporting data to document and verify the requirements of this section have been met.

(4) The accreditation of a NRTL will be valid for the period of the laboratory's current OSHA NRTL accreditation. The accreditation of a non-NRTL will be valid for the period of five years from the date of the department's accreditation.

(5) On-site inspection of a laboratory.

(a) On-site inspection of the laboratory may be required during the initial application process or the renewal process. Technically qualified representative(s) of the department will evaluate for compliance with accreditation criteria.

(b) On-site inspection is not required for NRTL-recognized laboratories requesting approval as certification laboratories using standards for which NRTL recognition has been approved.

(c) The department may waive on-site inspection for:

(i) Laboratories recognized or accredited by another state determined to provide an accreditation program acceptable to the department; or

(ii) NRTL-recognized laboratories requesting approval as certification laboratories for using other standards for which NRTL recognition has not been approved.

(d) The applicant must pay all costs associated with the on-site inspection.

(6) For purposes of chapter 19.28 RCW, all laboratories which certify and/or field evaluate electrical products offered for sale in the state of Washington must be accredited by the department. A NRTL requesting approval as a certification laboratory will be approved for accreditation by the department upon completion of the application process.

(7) Fees are payable as required in WAC 296-46B-911.

(8) The laboratory must apply for renewal of accreditation at least thirty days prior to the accreditation expiration date. The department will renew accreditation for the period specified in subsection (4) of this section or notify the renewing laboratory of the department's reason(s) of refusal following receipt of the completed form and renewal fee. Accreditation may be renewed or refused for one or more electrical product category(ies).

(9) The department accepts or denies laboratory accreditation for all laboratories within the state. Accreditation is determined when a laboratory provides evidence to the department that all the requirements of this chapter are met. Accreditation is determined by the department and prior to making a determination, the department may require information and documentation to be provided by the laboratory.

(a) Accreditation is subject to review when deemed necessary by the department. The laboratory must pay all costs associated with on-site review.

(b) Every accredited laboratory must continue to satisfy all the conditions specified in this chapter during the period of the accreditation. A non-NRTL accredited laboratory must furnish the department an annual report detailing the extent of its activities for the year. The report must include, but not be limited to:

(i) The number of factory inspections;

(ii) Organizational structure of the laboratory;

(iii) Statement of ownership of the laboratory;

(iv) Laboratory equipment verification;

(v) Client accreditation programs;

(vi) Reports of litigation, which in any way were the result of or may affect any accreditation or testing of products covered by this chapter; or

(vii) Assessment of recordkeeping (i.e., certification/evaluation plans, certification/evaluation reports).

(c) The department will notify the applicant of the accreditation results. A letter of accreditation from the department is proof of the accreditation of a laboratory.

(10) The laboratory will be approved to certify only those categories identified and authorized by the department. The department will approve and list electrical product category(ies) the laboratory is qualified to certify or evaluate. The accreditation letter will indicate the electrical product category(ies) for which accreditation is issued.

(11) The department may exclude specific electrical products from acceptance. When required, the laboratory must provide evidence, acceptable to the department, that the laboratory is qualified to certify or field evaluate the specific electrical product. Laboratory recognition as an NRTL for the standard(s) used to certify or field eval-

uate an electrical product will be acceptable evidence. The standards used for certification or field evaluation must be determined by the department to be acceptable and applicable to the electrical product being certified or field evaluated.

If a laboratory chooses to add additional standards prior to its expiration date, it must submit a Request Approval for Additional Standards form to the chief electrical inspector.

#### **Suspension or revocation.**

(12) Any laboratory failing to comply with the requirements of this chapter or submitting false information may have accreditation revoked or suspended for one or more electrical product category(ies).

(13) The department may suspend, revoke, or refuse to renew the accreditation of any laboratory found to be in noncompliance with this chapter or the laws of the state of Washington.

(14) The department will serve written notice of intent prior to suspension, revocation, or refusal to renew the accreditation of a laboratory.

(15) The laboratory must immediately notify all manufacturers whose products are covered by the accreditation that such products manufactured subsequent to the departmental revocation and offered for sale in the state of Washington can no longer bear the laboratory's label that identified it as a certified product in the state of Washington. A laboratory, whose accreditation has been suspended, may not reapply for accreditation during the period of such suspension. A laboratory, whose accreditation has been revoked, may reapply for accreditation no sooner than one year after the date of revocation of accreditation.

#### **Business structure, practices, and personnel.**

(16) The laboratory must be an independent, third-party organization with no organizational, managerial, financial, design, or promotional affiliation with manufacturers, suppliers, installers, or vendors of products covered under its certification or evaluation programs.

The laboratory must have an adequate diversity of clients or activity so that the loss or award of a specific contract regarding certification or evaluation would not be a deciding factor in the financial well-being of the laboratory.

(17) The laboratory must adequately meet the following business practices:

(a) Perform the examinations, tests, evaluations, and inspections required under the certifications programs in accordance with the designated standards and procedures;

(b) Assure that reported values accurately reflect measured and observed data;

(c) Limit work to that for which competence and capacity is available;

(d) Treat test data, records, and reports as proprietary information;

(e) Respond and attempt to resolve complaints contesting certifications and evaluation results;

(f) Maintain an independent relationship between its clients, affiliates, and other organizations so the laboratory's capacity to give certifications and evaluations objectively and without bias is not adversely affected; and

(g) Notify the department within thirty calendar days should it become unable to conform to any of the requirements of this chapter.

(18) Laboratories accredited under this chapter must notify the department within thirty calendar days of any of the following:

(a) Change in company name and/or address;

(b) Changes in major test equipment which affect the ability to perform work for which accredited;

(c) Changes in principal officers, key supervisory and responsible personnel in the company including the director of testing and engineering services, director of follow-up services, and the laboratory supervisor; or

(d) Change in independent status.

(19) The laboratory must develop and maintain a certification or evaluation program plan that includes, but is not limited to:

(a) The procedures and authority to ensure the product complies with the standard(s) established by the program;

(b) A quality control system;

(c) Adequate personnel to perform the certification or evaluation;

(d) Verification and maintenance of facilities and/or equipment;

or  
(e) Sample selection as applicable for product certifications, and for component testing as necessary for field evaluations.

The plan must demonstrate that the laboratory has adequate personnel, facilities, and equipment to perform all certifications and testing for which it is accredited by the state of Washington. These elements must be contained in the laboratory operations control manual.

(20) The laboratory must develop and maintain a quality control system adequate to assure the accuracy and technical integrity of its work as follows:

(a) The laboratory's quality control system must include a quality control or laboratory operations control manual;

(b) The quality control or laboratory operations control manual must be adequate to guide a testing technician or inspector in conducting the inspection, evaluation, and/or test in accordance with the test methods and procedures required for the laboratory's certification and/or evaluation program(s); and

(c) The laboratory must have a current copy of its quality control or laboratory operations control manual available in the laboratory for use by laboratory personnel.

(21) Competent personnel who must have training, technical knowledge, and experience adequate to perform the tests, examinations, and evaluations for the certification and/or evaluation activities for which recognition is sought must staff the laboratory.

(22) The laboratory must:

(a) Provide adequate safeguards protecting the employment status of personnel from the influence or control of manufacturers, vendors, or installers of electrical products certified or tested by the laboratory;

(b) Develop and maintain a job description for each technical position category;

(c) Ensure the competency of its staff to perform assigned tasks through individual yearly observation and/or examination by a person(s) qualified by the person who has technical responsibility for the laboratory;

- (d) Develop and maintain records of the results and dates of the observation or examination of personnel performance;
- (e) Maintain information on the training, technical knowledge, and experience of personnel; and
- (f) Develop and maintain an adequate training program assuring that new or untrained personnel will be able to perform assigned tasks properly and uniformly.

**Recordkeeping and reporting - General.**

(23) The laboratory must develop and maintain records and reports of those testing, inspection, certification, and evaluation activities associated with each program for which accreditation is sought. The laboratory must retain these records for a minimum of three years.

(24) The laboratory must make available to the department, upon request, all records required by the department to verify compliance with this chapter.

**Recordkeeping and reporting - Certification.**

- (25) Certification reports must contain, as applicable:
  - (a) Name and address of the laboratory;
  - (b) Pertinent data and identification of tests or inspections;
  - (c) Name of client;
  - (d) Appropriate product title;
  - (e) Designation of standards used to certify or test the product including edition and latest revision (e.g., UL 508, 17th Edition, Jan. 1999, Revision March 15, 2013);
  - (f) Description and identification of the sample including, as necessary, where and how the sample was selected;
  - (g) Identification of the test, inspection, or procedure as specified for certification or evaluation by the standard;
  - (h) Known deviations, additions to, or exclusions from evaluation and certification activities in order to be appropriate for new or innovative products not contemplated by the standard;
  - (i) Measurements, examinations, derived results, and identification of test anomalies;
  - (j) A statement as to whether or not the results comply with the requirements of the standard;
  - (k) Name, contact information, and signature of person(s) having responsibility for the report;
  - (l) Raw data, calculations, tables, graphs, sketches, and/or photographs generated during certification or evaluation must be maintained if not included in the report;
  - (m) Control forms documenting the receipt, handling, storage, shipping, and testing of samples;
  - (n) Laboratory records of its quality control checks and audits for monitoring its test work associated with its certification programs, including:
    - (i) Records of products assurance (follow-up) test results; and
    - (ii) Records of detected errors and discrepancies and actions taken subsequent to such detection.
  - (o) Record of written complaints and disposition thereof; and
  - (p) A statement that records required by these criteria will be maintained for a minimum of three years after cessation of the certification or evaluation.

**Recordkeeping and reporting - Field evaluation.**

- (26) The evaluation report must include:

- (a) Name and address of the laboratory;
  - (b) Name of client;
  - (c) Address where the evaluated product is or will be installed;
  - (d) Designation of standards used to certify or test the product including edition and latest revision (e.g., UL 508, 17th Edition, Jan. 1999, Revision March 15, 2013);
  - (e) Description and identification of the nonlisted and nonlabeled component(s) requiring evaluation by applicable standard(s);
  - (f) Description of the overall product evaluated to include full nameplate data and equipment type;
  - (g) A statement as to whether or not the results comply with the requirements of the standard;
  - (h) Pertinent test evaluation data and identification of tests or inspections including anomalies;
  - (i) Signature of person(s) having responsibility for the report;
  - (j) Any condition of acceptability or restrictions on use/relocation;
  - (k) Serial number(s) of the field evaluation label(s) applied must be included with the equipment identification; and
  - (l) Date the equipment label was affixed.
- (27) Within thirty calendar days after affixing the evaluation mark, the laboratory must submit a copy of the evaluation report to their client submitted in any format acceptable to the client and testing laboratory.

**Facilities and equipment.**

- (28) The laboratory must provide adequate evidence of the calibration, verification, and maintenance of the facilities and equipment specified for each certification or evaluation.
- (29) Verification and maintenance of facilities and equipment must include as applicable, but not be limited to:
- (a) Equipment description;
  - (b) Name of manufacturer;
  - (c) Model, style, serial number, or other identification;
  - (d) Equipment variables subject to calibration and verification;
  - (e) Statement of the equipment's allowable error and tolerances of readings;
  - (f) Calibration or verification procedure and schedule;
  - (g) Dates and results of last calibrations or verifications;
  - (h) Specified maintenance practices;
  - (i) Calibration and/or verification of equipment used;
  - (j) Name and contact information of personnel or outside contractor providing the calibration or verification service; and
  - (k) Traceability to National Institute of Standards and Technology or other equivalent standard reference authority.

**Standards.**

- (30) The laboratory must have copies available, for laboratory personnel use, of applicable standards and other documents referred to or used in performing each certification or test for which approval is sought.
- (31) If a laboratory desires to use a standard other than an ANSI standard, the department will evaluate the proposed standard to determine that it provides an adequate level of safety. The National Electrical Code, NFPA 70, will not be allowed to be the primary standard used to evaluate a product.

### **Product certification.**

(32) The electrical product certification program must contain test procedure(s), standard(s) used, certification agreement(s), method(s) of identification of products, follow-up inspection, and other laboratory procedures and authority necessary to ensure that the product complies with the standards (requirements) established by the program.

(33) All components of certified or tested products must be labeled or evaluated for compliance with all standards and conditions of use applicable to such components.

(34) The laboratory must publish an *Annual Product Directory* identifying products that are authorized to bear the laboratory's certification mark. The products directory must briefly describe the program, the products covered, the name of the manufacturer or vendor of the certified products, and the identification of the published standards or the compiled requirements on which the program is based. The product directory must be available to the public. Supplemental up-to-date information must be available to the public at the office of the laboratory during normal business hours.

### **Certification laboratory/manufacturer - Agreement.**

(35) Measures to provide for manufacturer compliance with the provisions of the product standard and laboratory control of the use of the certification mark must be embodied in an agreement between the manufacturer and the certification laboratory. The certification agreement must:

(a) Require the manufacturer to provide information and assistance as needed by the laboratory to conduct the necessary product conformity and production assurance evaluation;

(b) Allow the laboratory's representative(s) access to the manufacturer's facilities during working hours for inspection and may allow audit activities without prior notice;

(c) Restrict the manufacturer's application of certification marks to products that comply with requirements of the product standard;

(d) Secure the manufacturer's agreement to the publication of notice by the certification laboratory for any product already available in the marketplace that does not meet the safety standard;

(e) Require reevaluation of products whenever the standard covering the product is revised;

(f) Require the laboratory to notify the manufacturer's personnel responsible for and authorized to institute product recall in the case of a hazard;

(g) Provide for control of certification marks by the laboratory;

(h) Require that the laboratory provide the manufacturer with a report of original product evaluation. The report must document conformity with applicable product standards by test results and other data; and

(i) Require the identification of the manufacturer(s) of the product and the location(s) where the product is produced.

### **Certification mark.**

(36) The laboratory owns the certification mark.

(37) The certification mark must be registered as a certification mark with the United States Patent and Trademark Office.

(38) The certification mark must:

- (a) Not be readily transferable from one product to another;
- (b) Be directly applied to each unit of production in the form of labels or markings suitable for the environment and use of the product. When the physical size of the unit does not permit individual marking, markings may be attached to the smallest package in which the unit is marketed;
- (c) Include the name or other appropriate identification of the certification laboratory;
- (d) Include the product category; and
- (e) The laboratory must have a system of controls and records for all marks. The records must include marks removed or otherwise voided. See WAC 296-46B-999(25).

(39) The certification mark may be applied to the product prior to authorizing the use of a certification mark on a product. The laboratory must:

- (a) Determine by examination and/or tests that representative samples of the product comply with the requirements (standards). Components of certified products must comply with the applicable safety requirements (standards) or be listed. Evaluation of the product design must be made on representative production samples or on prototype product samples with subsequent verification that factory productions are the same as the prototype;
- (b) Determine that the manufacturer has the necessary facilities, test equipment, and control procedures to ensure that continuing production of the product complies with the requirements; and
- (c) If the certification mark is not applied at the manufacturing facility, the laboratory must provide prior notification to the department of its intent to affix the certification mark in the field.

**Certification laboratory product - Assurance/follow up.**

(40) To verify continued product acceptability, the laboratory must develop and maintain a factory follow-up inspection program and manual to determine continued compliance of certified products with the applicable standard.

(41) The follow-up inspection file must include the:

- (a) Conditions governing the use of the certification mark on products;
- (b) Identification of the products authorized for certification;
- (c) Identification of manufacturer and plant location at which manufacture and certification are authorized;
- (d) Description, specifications, and requirements applicable to the product;
- (e) Description of processes needed for control purposes;
- (f) Description of the manufacturer's quality assurance program when used as part of the follow-up program;
- (g) Description of inspections and tests to be conducted by the manufacturer and the laboratory; and
- (h) Description of follow-up tests to be conducted in the laboratory.

(42) Follow-up procedures and activities must include:

- (a) Periodic inspections at the factory with testing at the factory or certification laboratory of representative samples selected from production and, if appropriate, from the market;
- (b) Periodic auditing or surveillance of the manufacturer's quality assurance program through the witnessing of manufacturer's tests, review of the manufacturer's records, and verification of the manufacturer's produced data;



- (c) Investigation of alleged field failures upon department request; and
- (d) Procedures for control of the use of the certification mark by:
  - (i) Keeping records of the release and use of certification marks;
  - (ii) Removal of marks from noncomplying products;
  - (iii) Return or destruction of unused marks when the authority to use the marks is terminated; and
  - (iv) Legal action.

(43) The frequency of laboratory follow-up inspections must not be less than four times per year during production, unless adequate data is provided to the department to justify less frequent inspections. If there is no production during the year, at least one follow-up inspection is to be completed. The frequency of follow-up inspections must be sufficient to provide a reasonable check on the method(s) the manufacturer exercises to assure that the product bearing the certification mark complies with the applicable standards.

#### **Field evaluation - Requirements.**

(44) The field evaluation laboratory may perform evaluations on any products or product categories previously approved by the department. NRTL recognition may be accepted by the department as a basis for approval to perform field evaluations. Since OSHA does not review or recognize laboratories for field evaluation purposes, laboratories seeking accreditation from the department for field evaluation may be required to provide additional justification of capability such as, but not limited to: Recordkeeping, employee standards and proficiency, equipment requirements, and other requirements described in this chapter.

(45) The scope of a field evaluation will depend on the status of the item to be evaluated as follows:

(a) A new piece of equipment must have a complete evaluation of all components and the assembly as provided by the manufacturer. For example: An industrial machine with a control panel, remote motors, sensors, controls, and other utilization equipment; and

(b) A product that has been modified internally or by an addition need have only those portions evaluated that were affected by the modification. For example: A switchboard with multiple sections that has a section added would only need the new section, the one section immediately adjacent, and any control modifications evaluated.

(46) Each unit that receives a field evaluation mark applied by the field evaluation laboratory must have sufficient inspections and/or testing completed to ensure it is in essential conformance with the applicable product standard(s).

(47) The laboratory may perform the preliminary evaluation in the manufacturer's facility. Final evaluation and acceptance of the product must be made on-site at the location of final installation, unless waived by the department.

#### **Field evaluation mark.**

(48) Only laboratory personnel may apply the field evaluation mark after final acceptance of the product. The field evaluation label must be applied on-site at the location of the final installation, unless waived by the department.

(49) The field evaluation laboratory must have a system of controls and records for all field evaluation marks it applies. The records must include labels removed or otherwise voided.

(50) A field evaluated product may be relocated or fed from a different power source if not prohibited by the field evaluation mark or the field evaluation report.

(51) The field evaluation mark must:

(a) Not be readily transferable from one product to another;

(b) Be directly applied by the laboratory personnel to each unit of production in the form of labels or markings suitable for the environment and use of the product;

(c) Include the name or other appropriate identification of the certification laboratory;

(d) Include a unique evaluation laboratory reference number; and

(e) Include a reference to the evaluation report or other notation if there are any limitations of use noted within the report.

(52) The field evaluation laboratory must have a system of controls and records for all field evaluation marks it applies. The records must include labels removed or otherwise voided. See subsection (26) of this section.

[Statutory Authority: Chapter 19.28 RCW, RCW 19.28.010 and 19.28.031. WSR 17-12-021, § 296-46B-999, filed 5/30/17, effective 7/1/17. Statutory Authority: Chapter 19.28 RCW. WSR 14-11-075, § 296-46B-999, filed 5/20/14, effective 7/1/14; WSR 13-03-128, § 296-46B-999, filed 1/22/13, effective 3/1/13. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.281, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551. WSR 06-05-028, § 296-46B-999, filed 2/7/06, effective 5/1/06; WSR 05-10-024, § 296-46B-999, filed 4/26/05, effective 6/30/05. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.271, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551, 2003 c 399, 2003 c 211, 2003 c 78, and 2003 c 242. WSR 04-12-049, § 296-46B-999, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 19.28.006, 19.28.010, 19.28.031, 19.28.041, 19.28.061, 19.28.101, 19.28.131, 19.28.161, 19.28.171, 19.28.191, 19.28.201, 19.28.211, 19.28.241, 19.28.251, 19.28.271, 19.28.311, 19.28.321, 19.28.400, 19.28.420, 19.28.490, 19.28.551, 2002 c 249, chapters 34.05 and 19.28 RCW. WSR 03-09-111, § 296-46B-999, filed 4/22/03, effective 5/23/03.]