

West Virginia Division of Highways
Transportation Engineering Technician and
Bridge Safety Inspector Certification Program

RULES AND REGULATIONS

EFFECTIVE August 1, 2016

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I. PURPOSE

The purpose of these rules and regulations is to provide for the certification of qualified persons as Transportation Engineering Technicians/Technologists (TRET) or Bridge Safety Inspectors (BRSFIN) and ensure proper performance of the duties of the Board of Advisors (Board). Hereinafter, except in Section III, the term technician or technicians will refer to both Transportation Engineer Technicians and Bridge Safety Inspectors.

II. BOARD OF ADVISORS

- 1) The Board shall be composed of seven members appointed by the West Virginia Division of Highways (WVDOH). Board members shall be West Virginia registered Professional Engineers (PE) or certified at Level 5 by this Board. At least one Board member shall have direct experience with the inspection of in-service bridges. Board member appointments are for (four) 4 year terms and will be staggered to provide for continuity of the Board. Board members are eligible for reappointment to additional terms, but no member may be appointed for more than two full consecutive (4 year) terms.
- 2) The Board shall hold at least two regular meetings each year. Special meetings may be held at the chairman's request. The Board shall elect the following officers: a chairman, vice-chairman, and secretary, who shall serve at the will and pleasure of the Board. A quorum of the Board shall consist of not less than four members.

- 3) The Board shall, upon submission of each application, review the same and convey a decision consistent with the TRET and/or BRSFIN Certification Rules and Regulations.
- 4) The Board shall keep a record of its proceedings and of all applications for certification.

III. TRANSPORTATION ENGINEERING TECHNICIAN CERTIFICATION LEVELS

The Board will assess the applicant's education, technical experience, and training to determine the certification level in accordance with this section. The nature of the applicant's technical experience should be progressive in nature and will be evaluated and determined by the Board. For a more detailed description of progressive technical experience, see the "progressive technical work experience" document posted on the Board's website. The Board shall certify a qualified applicant based on one of the following certification levels:

1) Level 1-Transportation Engineering Technician – Trainee

(TRETTR):

To qualify for certification as a TRETTR, the applicant must possess a high school diploma or high school equivalency diploma (GED) and meet one of the following conditions:

Option 1 Traditional: Score a minimum of 35 on the Elementary Algebra ACCUPLACER placement test or its equivalent or pass the DOP exam required to qualify for the TRETTR register. No technical experience is required; or

Option 2 Experience: Documented (6) six months of Board approved technical experience.

2) **Level II – Transportation Engineering Technician–Associate (TRETAS):**

To qualify as a TRETAS, an applicant must meet one of the following conditions:

Option 1 Traditional: Documented (2) two years of Board approved technical experience and obtained 180 TDH's from the A.A.S. Highway Engineering Technology degree requirements; or

Option 2 Pre-Approved AS degree: Obtained a Board approved Associate's degree in engineering, engineering technology, or similar technical degree, from an accredited college or university; or

Option 3 Experience: Documented (5) five years of Board approved technical experience directly related to the highway construction industry, and obtained (2) two WVDOH Material Certifications. (for initial certification only).

3) **Level III-Transportation Engineering Technician (TRET):**

To qualify as a TRET, an applicant must meet one of the following conditions:

Option 1 Traditional: Documented (5) five years of Board approved technical experience and obtained 450 TDH's from the A.A.S. Highway Engineering Technology degree requirements; or

Option 2 Pre-Approved AS degree: Documented (3) three years of Board approved technical experience before and/or after obtaining a Board approved Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

Option 3 Pre-Approved BS degree: Obtained a Board approved Bachelor's degree in engineering, engineering technology, or similar technical degree, from an accredited college or university; or

Option 4 Experience: Documented (10) ten years of Board approved technical experience directly related to the highway construction industry, and obtained (4) four WVDOH Material Certifications, (for initial certification only).

4) **Level IV-Transportation Engineering Technician-Senior (TRET SR):**

To qualify as a TRET SR Technician, an applicant must meet one of the following conditions:

Option 1 Traditional: Documented (10) ten years of Board approved technical experience and obtained 900 TDH's from the A.A.S. Highway Engineering Technology degree requirements; or

Option 2 Pre-Approved AS degree: Documented (8) eight years of Board approved technical experience before and/or after obtaining a Board approved Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

Option 3 Pre-Approved BS degree: Documented (5) five years of Board approved technical experience before and/or after obtaining a Board approved Bachelor's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

5) **Level V-Transportation Engineering Technologist (TRETENO):**

To qualify as a TRETENO, an applicant must meet one of the following conditions:

Option 1 Traditional: Documented (12) twelve years of Board approved technical progressive experience and obtained the A.A.S. Highway Engineering Technology degree requirements; or in lieu of the Highway Engineering Technician degree, 990 TDH/s from the degree requirements; or

Option 2 Pre-Approved AS degree: Documented (10) ten years of Board approved technical experience before and/or after obtaining a Board approved Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; (A minimum of 2 years of Board approved technical experience must be acquired after obtaining the Board approved degree); or

Option 3 Pre-Approved BS degree: Documented (7) seven years of Board approved technical experience before and/or after obtaining a Board approved Bachelor's degree in engineering, engineering technology or

similar technical degree from an accredited college or university. (A minimum of 2 years of Board approved technical experience must be acquired after obtaining the Board approved degree).

IV. BRIDGE SAFETY INSPECTOR CERTIFICATION LEVELS

The Board will assess the applicant's education, technical experience, and training to determine the certification level in accordance with this section. The nature of the applicant's technical experience should be progressive in nature and will be evaluated and determined by the Board. For a more detailed description of progressive technical experience, see the "progressive technical work experience" document posted on the Board's website. The Board shall certify a qualified applicant based on one of the following certification levels:

1) Level 1-Bridge Safety Inspector 1 – (BRSFIN1)

To qualify for certification as a BRSFIN1, the applicant must possess a high school diploma or high school equivalency diploma (GED) and meet one of the following conditions:

Option 1 Traditional: Score a minimum of 35 on the Elementary Algebra ACCUPLACER placement test, or its equivalent, or pass the DOP exam required to qualify for the BRSFIN1 register. No technical experience is required; or

Option 2 Experience: Documented (6) six months of Board approved technical experience.

2) Level 2-Bridge Safety Inspector 2 (BRSFIN2):

To qualify as a BRSFIN2, an applicant must successfully complete the Safety Inspection of In-Service Bridges (FHWA-NHI-130055) class and meet one of the following conditions:

Option 1 Traditional: Documented (2) two years of Board approved technical experience and obtained 180 TDH's from the A.A.S. Highway Engineering Technology – Bridge Inspection Concentration degree requirements; or

Option 2 Pre-Approved BS or AS degree: Obtained a Board approved Bachelor's degree or Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

Option 3 Existing Bridge Safety Inspector 1: Obtain 90 TDH's per year from the A.A.S. Highway Engineering – Bridge Inspection Concentration degree requirements until 2 years of documented Board approved technical experience as a bridge inspector has been met.

3) Level 3-Bridge Safety Inspector – (BRSFIN3):

To qualify as a BRSFIN3, an applicant must successfully complete the Safety Inspection of In-Service Bridges (FHWA-NHI-130055) class, obtain a passing score of the West Virginia Bridge Certification Test, and meet one of the following conditions:

Option 1 Traditional: Documented (5) five years of Board approved technical experience and obtained 450 TDH's from the A.A.S. Highway

Engineering Technology – Bridge Inspection Concentration degree requirements; or

Option 2 Pre-Approved BS or AS degree: Documented (5) five years of Board approved technical experience after obtaining a Board approved Bachelor's degree or Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university not listed in Option 3 or 4; or

Option 3 BSCE or BSCET degree with FE: Documented (2) two years of Board approved technical experience after obtaining a Bachelor's degree in civil engineering or civil engineering technology from an ABET accredited college or university and passed the Fundamentals of Engineering Exam; or

Option 4 ASCE or ASCET degree: Documented (4) four years of Board approved technical experience after obtaining an Associate's degree in civil engineering or civil engineering technology from an ABET accredited college or university; or

Option 5 Existing Bridge Safety Inspector 2: Obtain 90 TDH's per year from the A.A.S. Highway Engineering – Bridge Inspection Concentration degree requirements until 5 years of documented Board approved technical experience as a bridge inspector has been met.

4) Level 4-Bridge Safety Inspector – (BRSFIN4):

To qualify as a BRSFIN4, an applicant must successfully complete the Safety Inspection of In-Service Bridges (FHWA-NHI-130055) class, obtain a passing

score on the West Virginia Bridge Certification Test, and meet one of the following conditions:

Option 1 Traditional: Documented (8) eight years of Board approved technical experience and obtained 900 TDH's from the A.A.S. Highway Engineering Technology – Bridge Inspection Concentration degree requirements; or

Option 2 Pre-Approved BS or AS degree: Documented (8) eight years of Board approved technical progressive experience after obtaining a Board approved Bachelor's degree or Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

Option 3 BSCE or BSCET degree with FE: Documented (5) five years of Board approved technical progressive experience after obtaining a Bachelor's degree in civil engineering or civil engineering technology from an ABET accredited college or university and passed the Fundamentals of Engineering Exam; or

Option 4 BSCE, BSCET, ASCE or ASCET degree: Documented (7) seven years of Board approved technical experience after obtaining a Bachelor's degree or Associate's degree in civil engineering or civil engineering technology from an ABET accredited college or university; or

Option 5 Existing Bridge Safety Inspector 3: Obtain 90 TDH's per year from the A.A.S. Highway Engineering – Bridge Inspection Concentration

degree requirements until 8 years of documented Board approved technical experience as a bridge inspector has been met.

5) Level 5-Bridge Safety Inspector 5 – (BRSFIN5):

To qualify as a BRSFIN5, an applicant must successfully complete the Safety Inspection of In-Service Bridges (FHWA-NHI-130055) class, obtain a passing score on the West Virginia Bridge Certification Test, and meet one of the following conditions:

Option 1 Traditional: Documented (12) twelve years of Board approved technical progressive experience and obtained the A.A.S. Highway Engineering Technology – Bridge Inspection Concentration degree requirements; or in lieu of the Highway Engineering Technology – Bridge Inspection Concentration degree, 990 TDH's from the degree requirements; or

Option 2 Pre-Approved BS or AS degree: Documented (10) ten years of Board approved technical progressive experience after obtaining a Board approved Bachelor's degree or Associate's degree in engineering, engineering technology, or similar technical degree from an accredited college or university; or

Option 3 Pre-Approved BSCE or BSCET degree with FE: Documented (7) seven years of Board approved technical progressive experience after obtaining a Bachelor's degree in civil engineering or civil engineering technology from an ABET accredited college or university and passed the Fundamentals of Engineering Exam; or

Option 4 BSCE, BSCET, ASCE or ASCET degree: Documented (9) nine years of Board approved technical progressive experience after obtaining a Bachelor's degree or Associate's degree in civil engineering or civil engineering technology from an ABET accredited college or university; or

Option 5 Experience: Documented (12) twelve years of Board approved technical experience directly related to Bridge Safety Inspection in accordance with the NBIS and obtained at least 180 TDH's from the A.A.S. Highway Engineering Technology – Bridge Inspection Concentration degree requirements. HWAY 150 – Structures I, HWAY 151 – Structures II, HWAY 250 – Structures III, and any prerequisites shall be taken as part of the 180 TDH requirement.

V. ADVANCEMENT TECHNICIAN DEVELOPMENT HOURS (TDH'S)

- 1) Definition – Advancement Technician Development Hours are academic credit hours gained by the technician from the A.A.S. Highway engineering technician and/or Bridge Inspection Certification degree requirements that will be applied for credit in advancing to higher levels in the certification program.
- 2) The ONLY advancement TDH's that will be accepted by the Board to the next higher level will be through the following methods:
 - a) Successful completion of courses in the Associate of Applied Science Highway Engineering Technician and/or Bridge Inspection Certification Degree; or

- b) Academic courses that can be transferred into the Associate of Applied Science highway Engineering technician and/or Bridge Inspection Certification Degree; or
- 3) ALL BOARD APPROVED ADVANCEMENT COURSES ARE POSTED ON THE BOARD'S WEBSITE. A representative from the authorized academic entity will determine if these TDH's will be credited towards actual college credit.
- 4) Each Applicant is charged with the responsibility of their own professional development activities. The maintenance of records to be used to support credits claimed is the responsibility of the Applicant.

VI. CONTINUING EDUCATION REQUIREMENTS

- 1) Definition – Continuing Education Units (CEU's) are hours gained by the technician each year to meet the continuing competency requirement. The Board has final authority with respect to approval of all CEU's.
- 2) Each Technician certified through this program is required to document the continuing education competency hours gained each year on the "*Annual Certification of Continuing Competency Form*". Technicians may submit an original hard copy or send by email a signed copy of this form to the Board by the required deadline. Failure to submit this form may result in the loss of certification in this program.
- 3) CEU's may be claimed by the Applicant for each contact delivery hour of training, instruction, or presentation designed to keep the technician current (one in-class contact hour = 1.0 TDH's = 0.1 CEU's).

- 4) Each Technician certified through this program is required to obtain a minimum of (12) twelve TDH's (1.2 CEU's) each year as a continuing education requirement. The year is defined based on the state fiscal year beginning July 1 and ending June 30. Should the technician exceed the annual CEU requirements in any year, a maximum of (6) six TDH's (0.6 CEU's) may be carried forward into the subsequent year.
- 5) The Board may perform audits to determine if the continuing education requirement is being met. Technicians must supply records of CEU's to the Board upon request. Failure to supply the Board with these records will result in revocation of certification.

VII. SUBMITTING AN APPLICATION

- 1) An applicant applying to the Board for certification as a Technician shall submit a completed application on forms prescribed by the Board.
- 2) An applicant shall provide a detailed description of the nature of the work and duties he or she has performed in the Employment History Section III of the application form. When space provided on the form is adequate, applicants may duplicate the original Employment history Section as many times as necessary for inclusion and insert into the application. The progressive nature of the applicant's experience (an increase in quality or responsibility) must be clearly stated.
- 3) An applicant shall provide an official transcript, an official transcript is a printed record of a student's academic history, issued by the College/University Registrar, that is stamped and/or marked "Official"

and is enclosed in a sealed envelope marked “Unofficial if Opened”, of the semester hours and certifications he or she has completed in the Training Section IV of the application form. When space provided on the form is inadequate, applicants may duplicate the original Training Section as many times as necessary for inclusion and insert into the application.

- 4) The Board may refuse to certify an applicant who has withheld information or provided statements which are untrue or misrepresented the facts. An applicant found misrepresenting information in the application process will be banned from this program indefinitely.
 - a) In order to allow for sufficient time of processing applications, all applicants must file a completed application by January 31st, March 31st, June 30th, and October 31st of each year. The applicant must meet the minimum level requirements by the submission deadline. If the applicant does not meet the minimum requirements by the submission deadline, the application shall be rejected.

VIII. APPLICATION REVIEW PROCESS

- 1) The Board may approve an application; defer it until the applicant provides further information; or reject an application. Once a decision has been rendered, a new application will not be considered until the applicant meets all requirements of the Board’s decision letter.
- 2) When an application is approved by the Board, it indicates the applicant has met all the minimum requirements set forth by the Board, and shall

confer the applicant a certification. The Board shall notify the applicant of approval in writing.

- 3) The Board will retain applications, which are deferred for any reason until the applicant submits the additional information required by the Board. If additional materials are not submitted within one year, that application will be considered void and destroyed.
- 4) When the Board rejects an application, it will be kept on file for one year and then destroyed. An applicant may request that the Board reconsider an application which has been rejected when the request is based on additional information and/or evidence which could affect the original decision. An applicant must file an appeal within (60) sixty days after notification of the Board's decision. The applicant must submit a written letter to the Board clearly documenting the additional information and/or evidence which could affect the original decision.
- 5) Each applicant may submit one formal appeal in writing indicating the discrepancy with said rules and regulations. The Board shall respond to this appeal in writing with all decisions of the Board considered final and are not subject to further review. The Board has final authority with respect to the interpretation of said Rules and Regulations.
- 6) The Board will keep an electronic copy of all current status letters and approved certification in an alternate secure facility.

IX. CERTIFICATION & RENEWAL FEES

- 1) WVDOH, upon the recommendation of the Board of Advisors, shall issue a certificate to an applicant who has met the requirements of said Rules and Regulations. The certificate will indicate the applicant's name, certification title, and the unique technician certification number.
- 2) WVDOH, upon recommendation of the Board of Advisors, will set fees certification, renewals, late fees, etc. as necessary for the operation of this program. (All fees are posted on the Board's website.)
- 3) All technicians must complete the annual Continuing Education requirements by June 30th each year. Should the technician not meet the requirements or does not respond by the submission deadline, they will be charged late fees of \$10.00 for the first month, \$20.00 for the second late month, and \$30.00 for the third late month. After the third month, the technician's certification will be revoked.
- 4) Participants certified in this program will be required to submit an annual renewal fee to remain current. Upon receipt of renewal fees, the participant will be issued a renewal maintenance card indicating their name, unique technician certification number and expiration date.

X. REINSTATEMENT PROCEDURES FOR REVOKED TECHNICIANS

- 1) Technicians that have been revoked in the Transportation Engineering Technician and/or Bridge Inspection Certification Program may be reinstated by complying with all of the following procedures:
 - a) The Technician shall submit a completed "*Annual Verification of Continuing Competency Form*" documenting required CEU's; and

- b) Must obtain the required continuing education units for each non-compliant year; and will be personally responsible to pay the annual maintenance dues of \$30.00 per year for each non-compliant year plus a one-time fee of \$30.00.

XI. RETIRED STATUS

- 1) Technicians may request retired status by writing “Retired” on the “*Annual Verification of Continuing Competency Form*” or by requesting “Retired” status in writing. All technicians who request retired status must certify that they are no longer receiving payment for technical engineering or bridge inspection services.
- 2) The Board shall reserve the original assigned certification number for any technician who elects to convert their certification to retired status. This number will remain on file in the event that the retired technician should choose to reinstate his or her certification.
- 3) Retired technicians may be changed to active status by the following procedure:
 - a) Submitting a completed “*Annual Verification of Continuing Competency Form*” documenting required CEU’s; and
 - b) Obtaining the required continuing competency units per year, up to a maximum of (24) twenty-four continuing education units; and
 - c) Submitting the annual maintenance fees of \$30.00 per year up to a maximum of \$60.00. No late fees apply.