

Mn/DOT Bridge Safety Inspection Certification Policy (2008)

The requirements listed below have been developed by the Mn/DOT Bridge Office to comply with the National Bridge Inspection Standards (NBIS), as outlined in the Federal Code of Regulations Part 650.309, Minnesota Statute 165, and State of Minnesota Rule 8810.9300. *Note: the certification levels defined below refer to the inspection of in-service bridges and culverts - this should not be confused with bridge construction inspection certification.*

Mn/DOT Bridge Office Contacts (Bridge Safety Inspection Certification)

Todd Niemann	(651) 366-4567	todd.niemann@dot.state.mn.us
Jennifer Zink	(651) 366-4573	jennifer.zink@dot.sate.mn.us
Pete Wilson	(651) 366-4574	pete.wilson@dot.state.mn.us
Ken Rand	(651) 366-4576	ken.rand@dot.state.mn.us

Mn/DOT Bridge Safety Inspector Definitions and Qualifications

Assistant Bridge Inspector: While the FHWA and Mn/DOT have no minimum requirements for who can assist in a bridge inspection, Mn/DOT encourages assistant bridge inspectors to attend the 1-week NHI training course (“Engineering Concepts for Bridge Inspectors”). Individuals who have passed the 1-week or 2-week NHI bridge safety inspection training course (taken though the Mn/DOT Training Center), but are not yet certified as a Bridge Inspection Team Leader, will be sent a card identifying them as a “Assistant Bridge Inspector”.

Bridge Inspection Team Leader: A Bridge Inspection Team Leader can conduct inspections of in-service bridges & culverts on the state, county, and local highway system throughout the state of Minnesota. *Note: A Mn/DOT certified Bridge Inspection Team Leader must be present at the bridge site at all times during a bridge inspection.* There are two ways to qualify as a Bridge Inspection Team Leader (other qualifications in accordance with the NBIS will be considered on a case by case basis, as approved by the Mn/DOT Bridge Inspection Program Manager).

1. Be a registered professional engineer in the state of Minnesota, successfully complete a FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the Mn/DOT Bridge Office).
2. Have five years of bridge inspection experience, successfully complete a FHWA approved comprehensive bridge inspection training course, **and pass a field proficiency test** (administered by the Mn/DOT Bridge Office).

Bridge Safety Inspection Training Courses

Mn/DOT offers two NHI Bridge Safety Inspection training courses each year (typically in February or March at the Mn/DOT Arden Hills Training Center). These courses were developed by the National Highway Institute (NHI), and are based upon the “Bridge Inspectors Reference Manual” (BIRM). Together, these two courses meet the definition of a “comprehensive training program in bridge inspection” as defined in the National Bridge Inspection Standards (NBIS). Enrollment and scheduling information for these two courses is available on the Mn/DOT Technical Certification website.

- The one-week NHI course “Engineering Concepts for Bridge Inspectors” provides instruction on elementary concepts in engineering for use by bridge inspectors - it is intended to prepare individuals with little or no background in bridge engineering for the more intensive two-week course. The one-week course is optional for technicians, inspectors, or engineers who have an adequate background in bridge engineering concepts. The cost of this course is \$350 (in 2007).
- The two-week NHI course “Safety Inspection of In-Service Bridges” provides detailed instruction on the inspection, evaluation, and condition rating of in-service bridges. This course is mandatory for anyone intending to become certified as a Mn/DOT Bridge Inspection Team Leader. The cost of this course is \$1,400 (in 2007).

Field Proficiency Test

In addition to the training and experience requirements outlined in the NBIS, Mn/DOT requires a separate field proficiency test to become certified as a Bridge Inspection Team Leader. To schedule a field proficiency test, an application form must be submitted to Mn/DOT Bridge Office to Schedule a field proficiency test (see attached form). The purpose of this test is to ensure compliance with the NBIS standards, to improve the quality of bridge inspections, and to increase the statewide consistency of bridge condition ratings.

The test consists of a routine inspection of an in-service bridge (based upon the Mn/DOT Bridge Inspection Manual and Inspection Report Format). The inspector is given 2 hours to examine a bridge, take notes, and determine the NBI & Pontis element condition ratings.

Grading of the field proficiency test is determined by comparing the candidate's inspection report to a reference inspection report. Emphasis is placed on the overall completeness and accuracy of the report, and on the proper documentation of any critical structural or safety conditions. Scoring is based on a scale of 0-100, with a passing score being 70 or higher. Applicants who fail the field proficiency test may apply again after 6 months. The score is weighted using the following criteria:

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| • NBI condition ratings | 30% |
| • Pontis element condition ratings | 30% |
| • Pontis “smart flags” & other items | 10% |
| • Inspection Notes | 30% |

Expiration & Recertification Policy

Certification as a Bridge Inspection Team Leader must be renewed every 4 years (re-certification forms will be mailed out prior to the expiration date). To maintain certification, Bridge Inspection Team Leaders must meet the following two criteria...

- The inspector must have attended a minimum of two refresher seminars during the four preceding years. These one-day seminars are conducted annually by the Mn/DOT Bridge Office (schedules will be mailed to all Inspection Team Leaders) - the seminar fee is \$50.
- The inspector must have been actively engaged in bridge inspection during at least two of the four preceding years (the supervising engineer must verify this activity).

