

CLASS TITLE: SUPERVISING BRIDGE SAFETY INSPECTOR

Class Code: 02756400
Pay Grade: 27A
EO: C

CLASS DEFINITION:

GENERAL STATEMENT OF DUTIES: To plan, coordinate and participate in the work of a crew engaged in performing technical safety inspections of bridges and related structures in accordance with pertinent national bridge inspection standards; to inspect bridges for corrosion and deterioration in steel beams and girders; makes technical measurements to determine if bridge cross-sectional area is reduced; to inspect concrete beams and girders for spalling, diagonal cracking and flexure cracking; inspects abutments, piers, decks, trusses, bearing for deterioration; prepares technical inspection notes, photos and sketches; operates special inspection equipment; reviews engineering plans and prior inspection reports; coordinates traffic control and equipment on-site; and to do related work as required.

SUPERVISION RECEIVED: Works under the general supervision of a superior from whom general directions are received which afford the opportunity for the use of independent judgment; and the making of technical decisions of difficulty; work is reviewed in process through the examination of reports and upon completion for results obtained.

SUPERVISION EXERCISED: Plans, coordinates and reviews the work of subordinates engaged in bridge inspection tasks.

ILLUSTRATIVE EXAMPLES OF WORK PERFORMED:

To plan, coordinate and participate in the work of a crew engaged in performing technical safety inspections of bridges and related structures in accordance with pertinent national bridge inspection standards.

To inspect bridges for corrosion and deterioration in steel beams and girders; makes technical measurements to determine if bridge cross-sectional area is reduced.

To inspect concrete beams and girders for spalling, diagonal cracking and flexure cracking; inspects abutments, piers, decks, trusses, bearing for deterioration; prepares technical inspection notes, photos and sketches; operates special inspection equipment; reviews engineering plans and prior inspection reports; coordinates traffic control and equipment on-site.

To plan, prepare and arrange for bridge inspections, including scheduling inspections, arranging for appropriate safety precautions and traffic control, reviewing plans and specifications, and determining optimum inspectional procedures.

To direct inspections of bridge components for deterioration, corrosion, settling, tilting and buckling, and to participate in such inspections as necessary.

To prepare complete and accurate reports in order to categorize the safety and condition of bridges, including technical measurements, photographs and sketches to clarify problems found.

To evaluate the seriousness of bridge defects noted and to inform a superior of any especially hazardous conditions.

As necessary, to ascend to high places on bridge structures by setting up and use of scaffolding, rigging, ladders and hydraulic equipment.

To utilize small boats during the course of waterway bridge inspections; to perform inspection of bridges to determine maintenance and repair needs; inspects bridges by climbing over or through members; inspects for damage including, but not limited to, spalled concrete, reduced steel members, broken railings, peeling paint, damaged signs, broken guard rails on bridge approaches, and damaged utility service; prepares reports recommending maintenance and repair work required.

To perform inspections of bridge related structures, such as trestles, culverts, and water ways to detect damage or wear and to ensure structures conform to safety regulations, codes and engineering specifications; inspects masonry to detect cracks in concrete or signs of settlement; verifies alignments with gauging instruments.

To inspect bridge decks for; potholes, cracks and spalls, loose or missing deck joints, missing, damaged, or substandard safety features such as bridge railings, guard railings, light standards, and signs.

To inspect piers, bents, and abutments for evidence of rotation, settlement, or deterioration.

To take measurements to quantify all findings and to determine if there has been a reduction of cross-sectional area in structural members.

To investigate and report on complaints and accidents involving bridge structures; recommends repair or change in structure or maintenance as safety conditions required.

To do related work as required.

REQUIRED QUALIFICATIONS FOR APPOINTMENT:

KNOWLEDGES, SKILLS AND CAPACITIES: A thorough knowledge of the methods and techniques of bridge safety inspections and the ability to supervise a team performing such inspections; a thorough knowledge of federal and state guidelines relating to the safety inspection and condition rating of bridges; a thorough knowledge of bridge components, their purposes and interrelationships; a working knowledge of basic engineering principles as applied to bridge construction; a thorough knowledge of work zone safety requirements; the ability to prepare neat and accurate drawings and sketches; a working knowledge of safety procedures to be employed in bridge safety inspections; the ability to ascend to and work in high places without inordinate fear; the ability to use various bridge inspection measurement devices; the ability to prepare complete and accurate bridge safety inspection reports; the ability to read and interpret basic bridge construction plans; the ability to perform mathematical computations; the ability to operate a digital camera and computer software used in reporting; the ability to operate and adjust specialized bridge inspection measurement and detection devices; and related capacities and abilities.

EDUCATION AND EXPERIENCE:

Education: Such as may have been gained through: possession of an associate's degree, or the completion of at least a two-year program supplemented by courses in construction or civil engineering technology at an technical institute or two years at an accredited college or university supplemented by courses in civil or mechanical engineering; and

Experience: Such as may have been gained through: extensive employment in a technical position in the area of bridge inspection, construction, maintenance or design.

Or, any combination of education and experience that shall be substantially equivalent to the above education and experience.

SPECIAL REQUIREMENT: At the time of appointment must be physically qualified to perform assigned duties as evidenced by a physician's certificate, with spirometry and respiratory clearance. At the time of appointment, must possess and maintain a valid Rhode Island Drivers License. Within six months of appointment, must satisfactorily complete the USDOT NHI comprehensive training course in National Bridge Inspection Standards (NBIS).

Class Revised: July 6, 1986

Editorial Review: March 15, 2003

Class Revised: July 1, 2012

