

Class Concept

This is advanced level inspection and scheduling work as a Team Leader on a highway structure management special inspection team in a large geographical area or as an underwater structure management inspection team in a large geographical area.

Employees conduct special or underwater inspections of structures including bridges, steel light standards, overhead and cantilever sign structures, culverts, large pipes, tunnels and overhead structural walkways to detect evidence of deterioration and/or damage due to natural or accidental causes. Employee also makes determinations on whether to close down severely defective structures and writes, reviews and/or revises detailed structure inspection reports documenting findings to be used in an asset management program which includes determining the structural integrity and safety of state highway structures. Employee ensures that all data necessary to complete an inspection report is obtained; trains new inspectors; schedules, plans and determines the team's activities in conformance with bridge priorities; and selects the most appropriate inspection techniques and equipment. Employee works under the limited supervision of a Bridge Inspection Supervisor. Employee's work is reviewed and evaluated upon completion for accuracy of inspections. Work may include other duties and responsibilities as assigned.

Recruitment Standards

Knowledge, Skills, and Abilities

- Considerable knowledge of applicable testing equipment, of federal and state inspection principles, techniques, procedures and equipment, and of bridge design types.
- Considerable knowledge of bridge construction, maintenance and material characteristics.
- Ability to supervise, direct and evaluate the work of others.
- Ability to interpret plans and specifications, to apply basic mathematics to compute areas and volumes, and to keep accurate notes and records.
- Ability to draw detailed sketches, to make accurate observations and complete standard forms, to write narrative reports, and the physical ability to climb ladders, scaffolds, access equipment and bridge structures.

For Underwater applications:

- Considerable knowledge of safety requirements for divers.
- Considerable knowledge of operation and maintenance of scuba and surface supplied diving gear.
- Skill in the use and care of SCUBA gear.
- Physical ability to dive for extended periods of time in extreme weather, water conditions and varying degrees of underwater visibility.

Minimum Education and Experience

Associate's degree in Civil Engineering Technology from an appropriately accredited institution and five years of progressive experience in the inspection, construction, design or maintenance of major steel or concrete bridges or other structures; or,

High school or General Education Development (GED) diploma and seven years of progressive experience in the inspection, construction, design or maintenance of major steel or concrete bridges or other structures; or an equivalent combination of training and directly related experience. In addition, successful completion of FHWA approved courses on comprehensive bridge inspection is required.

For Non-Underwater Applications: Fracture critical inspection techniques for steel bridges and agency approved ultrasonic testing (UT) level I & II is also required.

For Underwater Applications: Advanced SCUBA diving certification issued by a national diver certification association such as the National Association of Underwater Instructors (NAUI) or The Professional Association of Diving Instructors (PADI), and 100 hours of verifiable underwater diving experience (e.g., log entries).