

**Level IV Content Outline****Engineering Technician**

The candidate for NICET certification at Level IV in Highway Construction Inspection should have the knowledge, experience and skills needed to review project plans and specifications, including required properties of asphalt, concrete, and other materials to identify potential problems; develop inspection strategies, schedules, and assignments; supervise multiple inspection teams on major projects with considerable complexity; troubleshoot complex issues; evaluate the status of project schedule, budget, and contract requirements; and report to the project engineer-in-charge.

**4.1 Complex or Critical Construction**

(Questions related to these tasks make up 39-49% of the exam.)

- 4.1.1 Oversee inspections of critical construction activities. 3, 6, 8, 9
- 4.1.2 Develop and manage operation-specific hold-points for critical or complex inspections. 1, 2, 6, 8
- 4.1.3 Identify the likely causes of problems in construction materials or procedures, diagnose causes, and recommend remedies. 5, 6, 8

**4.2 Maintain Schedules and Budgets**

(Questions related to these tasks make up 22-32% of the exam.)

- 4.2.1 Review and evaluate baseline project schedules. 8
- 4.2.2 Review schedule updates for work completed and work remaining, and identify potential schedule conflicts. 4
- 4.2.3 Review work completed to verify eligibility for payment. 6, 8
- 4.2.4 Review project inspection and testing costs to date, estimate remaining costs, and compare to construction engineering and inspection budgets.

**4.3 Project Administration**

(Questions related to these tasks make up 24-34% of the exam.)

- 4.3.1 Interpret project contracts, plans, and specifications. 7, 8
- 4.3.2 Assign and provide for training of inspection and field testing personnel based on their qualifications and project requirements. 6
- 4.3.3 Evaluate the need for contract modifications and manage the change order process. 8
- 4.3.4 Manage the price adjustment provisions of performance-based contracts.
- 4.3.5 Review wage rate inspection reports for compliance with the Davis-Bacon Act and Disadvantaged Business Enterprise documentation for commercially useful functions. 10
- 4.3.6 Manage a project's final inspection, acceptance, and closeout. 6, 8, 9
- 4.3.7 Practice effective communication and manage working relationships. 6

April 1, 2018

footnote number is linked to a reference on the Selected General References listing