



## State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE  
*Governor*

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### **TO ALL UHOT CERTIFICATION CANDIDATES:**

P.L. 1999, chapter 322 requires all candidates for initial certification for unregulated heating oil tanks, other than New Jersey Licensed Professional Engineers, to sit for and pass an examination. The certification examination tests the candidate's knowledge of applicable rules and regulations as well as the technical aspects of the category of service to be performed. The examinations are comprised of multiple choice or true/false questions. A candidate must successfully answer 70 percent of the questions in order to receive a passing grade. The examination lasts up to two hours. At least one half of the questions are regulatory in nature and the balance are technical.

The following is meant to help a candidate prepare for an examination. No preparation document can contain all of the information that is needed to pass an examination, and this document is no exception. The information provided will familiarize the candidate with the construction of the examination, some of the topics covered by the examination, and the source materials used to generate questions for the examination. It is the responsibility of the candidate to obtain all relevant information and properly prepare for the examination.

Enclosed are the following:

1. List of source materials used to generate all examinations,
2. Example examination questions,
3. Fact Sheet
4. History of UST legislation,
5. UST applicability charts, and

Enclosures

The following sources were used to generate all questions on the examinations. All questions were reviewed to determine the appropriate categories of service to which they apply. Therefore, some questions may be applicable to more than one category of service and appear on more than one examination type while others may only appear on one examination type.

Please note that although a source of information may appear to relate to a particular category of service, it may actually contain information that applies to more than one category of service. For example, **Tank Closure Without Tears: An Inspector's Guide** would seem to apply to those performing tank system closure services but contains valuable information for anyone working with flammable substances. Therefore, questions gleaned from this document may appear in any of the examinations. As another example, documents such as API Bulletin 1615 or PEI RP-100 appear to apply to individuals performing installation and repair of tank systems only. Yet to perform a service effectively, individuals certified in all categories of service must understand the layout and construction of tank systems. Much of this information may be found in these documents. (For example, an installer must know the nuts and bolts of the system construction and its installation, but individuals certified in other categories must know how it all fits together. Someone who tests tanks is responsible to know the tank construction and anything that will interfere with the performance of the test. Likewise, a Cathodic Protection Specialist needs to understand the tank construction in order to properly design a corrosion protection system. A Subsurface evaluator should understand the tank layout and dispensing system in order to best evaluate where a discharge may have occurred. A person certified in closure needs to understand the tank layout and ancillary equipment in order to prevent discharges during removal.)

There are several documents, which apply exclusively to those performing subsurface evaluations. They are documents #4, 5, 6, 7, 8, 17, 18, and 19.

The sources used to generate the examinations follow:

1. 29 CFR 1910 - OSHA Regulations  
Federal OSHA regulations may be obtained at a library or by calling the US Department of Labor at (202) 523-8151.
2. N.J.S.A. 58:10A-21 et seq. (UST Act)  
State statutes may be obtained at a library.
3. N.J.A.C. 7:14B-1-16 - New Jersey UST Regulations (<http://www.nj.gov/dep/srp/regs/ust>)  
State regulations may also be obtained at a library or by calling the Office of Administrative Law at (609)588-6500.
4. N.J.A.C. 7:26E - Technical Requirements for Site Remediation (<http://www.nj.gov/dep/srp/regs/techrule>)  
State regulations may also be obtained at a library or by calling the Office of Administrative Law at (609) 588-6500.
5. N.J.A.C. 7:9-C - Ground Water Quality Standards (<http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf>)  
State regulations may also be obtained at a library or by calling the Office of Administrative Law at (609) 588-6500.
6. N.J.D.E.P. Field Sampling Procedures Manual, August 2005 (<http://www.nj.gov/dep/srp/guidance/fspm/>)
7. Alternative Ground Water Sampling Techniques Guide, July 1994 (<http://www.nj.gov/dep/srp/guidance/agws/>)
8. N.J.D.E.P. Vapor Intrusion Guidance, October 2005 (<http://www.nj.gov/dep/srp/guidance/vaporintrusion>)
9. American Petroleum Institute      API Bulletin 1604  
1220 L Street, Northwest  
Washington, DC 20005                  API Bulletin 1615
10. Ameron - Ameron Dualoy 300L Installation Practices  
1004 Ameron Road  
Burkburnett, TX 76354
11. National Fire Protection Assoc.      NFPA 30  
1 Batterymarch Park  
PO Box 9101

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12. Tank Closure Without Tears; An Inspector's Guide  
New England Interstate Environmental Training Center  
2 Fort Road  
South Portland, ME 04106 (207)767-2539
13. Owens Corning Installation Instructions  
Owens Corning – Fiberglass Tower  
Toledo, OH 43659
14. Petroleum Equipment Institute PEI/RP 100  
P.O. Box 2380  
Tulsa, OK 74101
15. Steel Tank Institute Installation Instructions  
Steel Tank Institute  
570 Oakwood Road  
Lake Zurich, IL 60047
16. Total Containment Installation Instructions  
Total Containment  
306 Commerce Drive  
Exton, PA 19341
17. Applied Hydrogeology – C.W. Fetter Jr., 1980
18. Ground Water Hydrology – 2<sup>nd</sup> Edition, David Keith Todd, 1980
19. Ground Water and Wells - 2<sup>nd</sup> Edition, Fletcher G. Driscoll, 1986

The following are examples of questions that may appear on the certification examination. It is not implied that these are the only questions that may appear on an examination. The first list of questions applies to all categories of service, the remainder of the questions are grouped by category of service. The source(s) for each question is listed after the answer choices. Please refer to them to locate the correct answers. Staff has been instructed to not reveal the correct answers.

### **QUESTIONS COMMON TO ALL CATEGORIES OF SERVICE**

At what point does an above ground tank system become considered an underground storage tank?

- a. When 50 percent of the volume of the tank system, lines, and other equipment are beneath the surface of the ground.
- b. When 75 percent of the volume of the tank system, lines, and other equipment are beneath the surface of the ground.
- c. When 10 percent of the volume of the tank system, lines, and other equipment are beneath the surface of the ground.

Hint: N.J.S.A. 58:10A-21 et seq., N.J.A.C. 7:14B-1, 40 CFR 280  
Pay attention to definitions.

Kerosene is always considered heating oil for registration purposes of the State UST Act?

- a. True
- b. False

Hint: N.J.A.C. 7:14B-1  
How many ways may kerosene be used?

The differences between purging and inerting a tank is?

- a. Purging replaces fuel vapors with air while inerting replaces oxygen and fuel vapor with an inert gas.
- b. Purging replaces oxygen and fuel vapors with an inert gas while inerting replaces fuel vapors with air.
- c. Purging saturates the tank with fuel vapors while inerting introduces carbon dioxide.
- d. There is no difference.
- e. None of the above.

Hint: Tank Closure Without Tears; An Inspector's Guide.

Gasoline vapors are flammable when the concentration by volume in air is:

- a. 20 percent
- b. 17.5 – 20 percent
- c. 5.7 – 9.3 percent
- d. 2.4 – 7.6 percent
- e. 0.1 – 0.7 percent

Hint: Tank Closure Without Tears; An Inspector's Guide.

**INSTALLATION**  
**(ENTIRE SYSTEM AND RELEASE DETECTION MONITORING SYSTEM)**

When installing a fiberglass or steel tank, what is the minimum required bedding under a tank in normal excavations:

- a. 6 inches.
- b. 12 inches.
- c. 18 inches.
- d. 24 inches.

Hint: API Bulletin 1615, Petroleum Equipment Institute PEI/RP 100

If a firm is certified in tank installation and employs an individual certified installation, closure, tank testing and subsurface evaluation, what services may this individual perform?

- a. Installation.
- b. Closure.
- c. Tank Testing.
- d. Subsurface Evaluation.
- e. All of the above.

Hint: N.J.S.A. 58:10A-24.1 through 24.6

When anchoring a STI P3 tank, it is recommended to put the strap or cable directly on the tank.

- a. True
- b. False

Hint: Steel Tank Institute Installation Instructions

## CLOSURE

Which of the following materials is not acceptable for filling an UST which is being abandoned-in-place?

- a. Sand.
- b. Cement.
- c. Gravel.
- d. Water.
- e. All of the above

Hint: API Bulletin 1604, page 4.  
How is this material described in API Bulletin 1604?

If a firm is certified in tank closure and employs an individual certified in installation, closure, tank testing and subsurface evaluation, what services may this individual perform?

- a. Installation.
- b. Closure.
- c. Tank Testing.
- d. Subsurface Evaluation.
- e. All of the Above

Hint: N.J.S.A. 58:10A-24.1 through 24.6

Level C protection does not include:

- a. Safety shoes.
- b. Self contained breathing apparatus (SCBA).
- c. Chemical resistant clothing.
- d. Hard hat.
- e. Inner and outer chemical resistant gloves.

Hint: 29 CFR 1910, Appendix B

## TANK TESTING

The Federal rule recognizes a precision tank system test when the test is capable of detecting a \_\_\_\_\_ per hour leak rate with a 95 percent probability of detection and a 5 percent probability of false positive.

- a. 0.1 gallon.
- b. 1.0 gallon.
- c. 0.01 gallon
- d. 0.05 gallon

Hint: 40 CFR 280.40 through 280.44

Required leak rates vary for different methods of monitoring.

NOTE: Although the method of monitoring must meet the required leak rate to be acceptable for use, when the equipment's threshold is exceeded, (the threshold is absolute minimum leak which can be detected and is always smaller than the required leak rate) a leak is detected.

If a firm is certified in tank installation and employs an individual certified in installation, closure, tank testing and subsurface evaluation, what services may this individual perform?

- a. Installation.
- b. Closure.
- c. Tank Testing.
- d. Subsurface Evaluation.
- e. All of the above.

Hint: N.J.S.A. 58:10A-24.1 through 24.6

According to the Technical Requirements for Site Remediation, precision test; may only be used in lieu of soil borings if piping is the original and there is no history of discharges or repairs.

- a. True
- b. False
- c. Insufficient information to determine.

Hint: N.J.A.C. 7:26E-3

A certified tester is required to oversee the testing of a 1,000 gallon gasoline tank at a farm where no other underground storage tanks are present.

- a. True
- b. False.

Hint: N.J.S.A. 58:10A-24.1 through 24..6, N.J.A.C. 7:14B-1

**CORROSION PROTECTION SYSTEM ANALYSIS**  
**(CATHODIC PROTECTION TESTER AND SPECIALIST)**

If a firm is certified in cathodic protection testing and employs an individual certified in installation, closure, cathodic protection testing and subsurface evaluation, what services may this individual perform?

- a. Installation.
- b. Closure.
- c. Cathodic protection testing.
- d. Subsurface evaluation.
- e. All of the above.

Hint: N.J.S.A. 58:10A-24.1 through 24.6

What is the purpose of the firm's financial assurance for cleanup or mitigation of a discharge of hazardous substances as a result of the performance of service?

A certified cathodic protection specialist is required to oversee the installation of the cathodic protection system for a 1,000 gallon gasoline tank at a farm where no other underground storage tanks are present.

- a. True
- b. False

Hint: N.J.S.A. 58:10A-24.1 through 24.6, N.J.A.C. 7:14B-1

Pay attention to definitions and exemptions as well as the requirement for a certified individual.



## SUBSURFACE EVALUATION

When contaminated soil is removed, and the tank excavation is enlarged horizontally, post remedial samples shall be collected

- a. One sample from the bottom of each side wall for each 30 linear feet of sidewall.
- b. One sample from the excavation bottom for every 900 square feet of bottom area.
- c. Centerline samples at a frequency equal to the total length of the tank divided by five
- d. A & B.
- e. All the above.

Hint: N.J.A.C.7:26E-6

A confined silt aquifer and a confined coarse sand aquifer both are infinitely extensive, isotropic, horizontal and are the same constant thickness. Using a well with the same screened interval and pumping rate, which of the following is true?

- a. The silt has a steeper cone of influence.
- b. The coarse sand zone has a more aerially extensive zone of influence.
- c. Both produce the same amount of water.
- d. All of the above.
- e. None of the above.

Hint: C.W. Fetter, Jr. – “Applied Hydrogeology”, Chapter 5  
David Keith Todd – “Ground Water Hydrology”, Chapter 3 and 4.

If a firm is certified in subsurface evaluation and employs an individual certified in installation, closure, tank testing and subsurface evaluation, what services may this individual perform?

- a. Installation.
- b. Closure.
- c. Tank testing.
- d. Subsurface evaluation.
- e. All of the above.

Hint: N.J.S.A. 58:10A-24.1 through 24.6

What is the purpose of the firm’s financial assurance for cleanup or mitigation of a discharge of hazardous substances as a result of the performance of service?

According to the Technical Requirements for Site Remediation, precision test: may not be used in lieu of soil borings if tanks are beneath buildings or otherwise inaccessible?

- a. True.
- b. False.
- c. Insufficient information to determine.

Hint: N.J.A.C. 7:26E-3

A monitoring well must be evacuated prior to sampling because evacuation:

- a. Removed the stagnant water column present in the well.
- b. Induces ground water flow from the surrounding formation into the well.
- c. Is necessary in order to obtain a representative sample of the ground water at the site.
- d. Removes drilling or other contaminants not representative of the ground water at the site.
- e. All of the above.

Hint: New Jersey Department of Environmental Protection Field Sampling Procedures Manual

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Level C protection does not include:

- a. Safety shoes
- b. Self contained breathing apparatus (SCBA).
- c. Chemical resistant clothing.
- d. Hard hat.
- e. Inner and outer chemical resistant gloves.

Hint: 29 CFR 1910, Appendix B

