

**U3 – UNDERGROUND TANK/PIPING TIGHTNESS TESTING
JOB TASK ANALYSIS & EXAMINATION OUTLINE**

1 Hour, Closed Book

Approximate % of 50 Questions

01 RECORDS AND REPORTING REQUIREMENTS (Content Area)		10%
0101	<u>Line and Tank Tightness Test Records</u> (Task) Review past tightness test records when available. Complete and submit tightness test results for current test to state UST agency on appropriate forms. Provide the tank owner/operator with written test results which indicate whether test is "passed" or "failed".	6%
0102	<u>Reporting of Failed Results and Releases</u> (Task) Notify the tank owner/operator that a "failed" test must be reported as a suspected release to the appropriate state agency within the appropriate time. Report system leaks as required.	4%
02 SITE PREPARATION AND LAYOUT (Content Area)		6%
0201	<u>UST System Layout</u> (Task) Determine site layout for tanks, piping, and equipment before beginning tests. Verify access to set up test equipment.	6%
03 PLACEMENT OF EQUIPMENT (Content Area)		6%
0301	<u>Tank Fill Lines, Devices, Connections, and Tank Caps</u> (Task) Verify correct installation of tank fill lines, connectors and other devices. Verify elevation of piping. Verify that fittings and joints are properly tightened. Verify correct identification and installation of fill and monitoring well caps	2%
0302	<u>Automatic Leak Detection Systems</u> (Task) Verify compliance with regulations requiring installation and proper operation of line leak detection and automatic leak detection systems and devices for product piping and tanks.	4%
04 SECONDARY CONTAINMENT (Content Area)		4%
0401	<u>Tank and Overfill Protection</u> (Task) Verify correct installation of tank overfill protection.	2%
0402	<u>Tank and Pipe Secondary Containment</u> (Task) Verify proper installation of tank and pipe secondary containment and release detection methods.	2%
05 VAPOR RECOVERY SYSTEMS (Content Area)		4%
0501	<u>Stage I and Stage II Vapor Recovery Systems</u> (Task) Verify correct installation of Stage I and Stage II vapor recovery systems when required.	4%

06 TEST VARIABLES & LEAK DETECTION REQUIREMENTS (Content Area)		24%
0601	<u>Release Detection Requirements</u> (Task) Determine compliance with regulations requiring installation and proper operation of leak detection systems and devices for product piping and tanks.	6%
0602	<u>Test Methods</u> (Task) Determine test methods to use to meet regulations.	4%
0603	<u>Periodic Tests at Required Intervals</u> (Task) Correctly inform tank owner/operator when a tightness test is required. Perform tightness tests at required time intervals according to EPA regulations applicable to each situation.	4%
0604	<u>Water Table</u> (Task) Determine the height of the water table and the groundwater elevation relative to the bottom of the tank. Use methods to compensate for the effects of the water table on the tightness tests.	2%
0605	<u>Interpretation of Test Results</u> (Task) Determine whether or not the tightness test results are conclusive and whether additional testing is required to obtain valid results.	8%
07 TANK TIGHTNESS TESTING METHODS(Content Area)		14%
0701	<u>Tank Tightness Testing</u> (Task) Use various methods of tank tightness testing.	14%
08 HEALTH AND SAFETY FOR UST WORKERS (Content Area)		12%
0801	<u>Control of Vapors and Sources of Ignition</u> (Task) Identify and control concentrations of flammable or combustible vapors before repairing, decommissioning or tank and pipe tightness testing. Use breathing support devices when necessary. Remove sources of ignition within distances required.	6%
0802	<u>Grounding and Bonding of Equipment</u> (Task) Verify grounding of electrical equipment to minimize the possibility of sparks from static electricity or other differences in electrical potential.	2%
0803	<u>Personal Safety Equipment</u> (Task) Observe safety precautions and use personal safety equipment necessary for the work involved in, including the use of protective clothing, safety line and other recommended equipment.	4%
09 PIPE TIGHTNESS TESTING METHODS (Content Area)		20%
0901	<u>Preparation for Pipe Tightness Testing</u> (Task) Identify components and system type and prepare piping for testing. Calibrate and install instrumentation equipment according to the test equipment manufacturer's instructions.	4%
0902	<u>Conduct Line Tightness Tests</u> (Task) Identify and remove air and vapor pockets in the piping. Measure and record pressure and volume loss or gain during tightness testing.	10%
0903	<u>Compare Data to Threshold Values</u> (Task) Compare measured leak rate to the acceptable threshold values to determine if there are leaks in the system.	6%