The General Trade Knowledge portion of the examination is administered daily in Computer Based Testing (CBT) format. It will consist of 80 equally weighted questions.

The examination will have questions relating to the following content areas and necessary knowledge for each area includes:

- reading and interpreting plans and specifications
- reading and interpreting codes
- basic mathematics
  (addition, subtraction, multiplication, division, calculations of area and volume, fractions, decimals, percentages, calculating the sides of triangles, square roots, powers of numbers, and solving simple algebraic equations for unknown variables)

You should be prepared to respond to examination questions on any of the content areas listed. Questions asked and content areas tested on previous examinations should not be assumed to be the only possible questions to be asked or content areas to be tested on this examination.

The percentage of questions shown for each content area may vary by as much as plus or minus three (3) percent. Please refer to the Candidate Information Brochure and the Reference List for additional information.

### Content Area A

**Pre-Installation and Site Preparation**

<table>
<thead>
<tr>
<th>1. Drawing plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of symbols</td>
</tr>
<tr>
<td>knowledge of abbreviations</td>
</tr>
<tr>
<td>knowledge of terminology</td>
</tr>
<tr>
<td>knowledge of site dimensions</td>
</tr>
<tr>
<td>knowledge of scale dimensions</td>
</tr>
<tr>
<td>knowledge of soil types</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Performing a pre-installation inspection and test of all tanks</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of checking for required parts of tank</td>
</tr>
<tr>
<td>ability to check for holes, dents, and scrapes on tanks</td>
</tr>
<tr>
<td>knowledge of low pressure air-testing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Determining location of excavations</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of invert elevations</td>
</tr>
<tr>
<td>knowledge of basic surveying and layout</td>
</tr>
<tr>
<td>knowledge of site utility locates (811)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Determining burial depths and slopes</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of excavation</td>
</tr>
<tr>
<td>knowledge of surveying/leveling techniques</td>
</tr>
<tr>
<td>ability to determine the need for shoring based on soil type</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Determining ground water conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of procedures for high water (dewatering)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Obtaining required permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of local permitting requirements</td>
</tr>
<tr>
<td>Knowledge of DEP requirements</td>
</tr>
<tr>
<td>Knowledge of local fire department/fire marshal requirements</td>
</tr>
</tbody>
</table>

### Content Area B

**Material Handling**

<table>
<thead>
<tr>
<th>1. Handling and filling tanks with various forms of petroleum products</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of spillage</td>
</tr>
<tr>
<td>knowledge of cleanup</td>
</tr>
<tr>
<td>knowledge of safety precautions</td>
</tr>
<tr>
<td>knowledge of State and Federal transportation laws relating to dangerous substances</td>
</tr>
<tr>
<td>knowledge of filling attachments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Handling and filling tanks with pesticides</th>
</tr>
</thead>
<tbody>
<tr>
<td>knowledge of spillage</td>
</tr>
<tr>
<td>knowledge of cleanup</td>
</tr>
<tr>
<td>knowledge of safety requirements</td>
</tr>
<tr>
<td>knowledge of attachments</td>
</tr>
<tr>
<td>knowledge of meters</td>
</tr>
</tbody>
</table>

Pollutant Storage Contractors General Trade Knowledge Examination Content Information
Page 1 of 7
3. **Handling and filling tanks with ammonia**
   - knowledge of spillage
   - knowledge of cleanup
   - knowledge of safety requirements
   - knowledge of attachments
   - knowledge of meters

4. **Handling and filling tanks with chlorine**
   - knowledge of spillage
   - knowledge of cleanup
   - knowledge of safety requirements

5. **Handling and filling tanks with other industrial chemicals**
   - knowledge of spillage
   - knowledge of cleanup
   - knowledge of safety precautions
   - knowledge of attachments
   - knowledge of meters

6. **Identifying contents and labeling tanks**
   - Knowledge of labeling requirements
   - Knowledge of placards and symbols
   - Knowledge of MSDS

Content Area C 10%

**Excavating**

1. **Coordinating and directing soil preparation and testing soil and ground water for petroleum products**
   - knowledge of surveying requirements
   - knowledge of backhoes
   - knowledge of trenchers
   - knowledge of cranes and rigging
   - knowledge of soils
   - knowledge of identifying polluted soils
   - knowledge of where to take soil samples
   - knowledge of compaction tests
   - knowledge of leveling requirements
   - knowledge of removal of debris from excavation
   - knowledge of bedding
   - knowledge of backfill materials
   - knowledge of chocks
   - knowledge of foreign materials left in tank and piping excavations

2. **Performing dewatering**
   - knowledge of pump requirements
   - knowledge of soils
   - knowledge of permeation
   - knowledge of supports and anchorage

3. **Installing sheet pilings**
   - knowledge of proper materials
   - knowledge of supports and placements
   - knowledge of soils
   - knowledge of layout (tank dimensions, distances from cofferdam walls for safe tank installation)
   - knowledge of “wet hole” tank installation method
   - knowledge of trenching and excavations
   - knowledge of requirements to have an engineer approve plans for sites beyond certain depths

4. **Securing excavation sites**
   - knowledge of OSHA
   - knowledge of barrier fencing
   - knowledge of pollutant runoff
   - knowledge of sediment control

Content Area D 7%

**Supports and Anchorage**

1. **Installing deadmen anchors**
   - knowledge of concrete form work
   - knowledge of reinforcing steel
   - knowledge of form work
   - knowledge of cables and hold-down straps

2. **Installing hold-down pads**
   - knowledge of concrete form work
   - knowledge of reinforcing steel
   - knowledge of properties of concrete including proper mixing
   - knowledge of placement
   - knowledge of drying time
   - knowledge of cables and hold-down straps

3. **Installing reinforcing concrete**
   - knowledge of concrete
   - knowledge of rebar
   - knowledge of requirements for slabs given anticipated load and use

4. **Performing backfill compaction**
   - knowledge of moisture tests
   - knowledge of tampers and compactors
   - knowledge of levels and surveying equipment
5. Checking for required surface elevation
   knowledge of surveying equipment and levels

6. Installing concrete isolation and contraction joints
   knowledge of properties of concrete
   knowledge of when joints are needed
   knowledge of form work

Content Area E 10%
Backfill

1. Adding ballast
   knowledge of when to add ballast
   knowledge of level of ballast
   knowledge of partial filling

2. Installing backfill materials for tanks
   knowledge of appropriate backfill material
   knowledge of removal of debris
   knowledge of ballasting
   knowledge of backfill material
   knowledge of backfill for nonmetallic tanks
   knowledge of pea gravel
   knowledge of crushed rock or gravel
   knowledge of compaction

3. Measuring tank deflection
   knowledge of determining deflection
   knowledge of causes of deflection
   knowledge of limit of acceptable maximum deflection

4. Installing filter fabric and other backfill migration preventers
   knowledge of installation requirements
   knowledge of determining unstable soils
   knowledge of determining appropriate fabrics

Content Area F 12%
Tank Installation

1. Unloading, lifting and lowering tanks
   knowledge of lining requirements
   knowledge of cables and chains
   knowledge of spreader bars
   knowledge of hoisting equipment and sufficient capacity
   knowledge of proper storage

2. Installing cathodically protected steel tanks
   knowledge of corrosion (dissimilar metals)
   knowledge of pressure testing requirements
   knowledge of pressure relief devices
   knowledge of gauges
   knowledge of potential damage to tank
   knowledge of thread protectors
   knowledge of plugs

3. Installing fiber-reinforced plastic tanks
   knowledge of hazards and potential damage
   knowledge of inspections
   knowledge of appropriate backfill materials
   knowledge of appropriate placement for multiple tanks in one excavation

4. Installing fiberglass-clad steel tanks
   knowledge of hazards and potential damage
   knowledge of inspections
   knowledge of appropriate backfill materials

5. Installing double wall steel tanks
   knowledge of hazards and potential damage
   knowledge of inspections
   knowledge of appropriate backfill materials

6. Installing double wall fiberglass tanks
   knowledge of hazards and potential damage
   knowledge of inspections
   knowledge of appropriate backfill materials

7. Pressure testing tanks
   knowledge of air pressure requirements
   knowledge of leak detection
   knowledge of plugs
   knowledge of removing and disposing of thread protectors
   knowledge of hazards and potential damage to tank while testing
   knowledge of pressure gauges
   knowledge of pressure relief devices
   knowledge of results of over-pressurization
   knowledge of compressors

8. Pressurizing interstice
   (annular space between tank walls)
   knowledge of compressors
   knowledge of using two gauges
   knowledge of leak detection
   knowledge of result of pressurizing
   knowledge of vacuum gauges
9. Installing emergency generator tanks
   knowledge of piping
   knowledge of valves
   knowledge of transfer pumps
   knowledge of day tanks
   knowledge of float switches

6. Installing submersible pumps and leak detectors
   knowledge of types of pumps
   knowledge of capacity of pumps
   knowledge of installation requirements

7. Performing a tightness test for pipes
   knowledge of compressors
   knowledge of operating pressures systems
   knowledge of soaping
   knowledge of hydrostatic testing
   knowledge of reading pressure gauges
   knowledge of pipe fitting

8. Determining product and vent pipe slopes
   knowledge of vapor and liquid traps
   knowledge of surveying instruments and levels

9. Installing double-walled and flexible piping
   knowledge of sealant requirements
   knowledge of tightness testing
   knowledge of trenching
   knowledge of bedding requirements
   knowledge of sizing pipes
   knowledge of level and surveying requirements

10. Installing fiberglass piping
    knowledge of trenching
    knowledge of appropriate sizes of trenches
    knowledge of tightness testing bedding
    knowledge of sealants
    knowledge of backfilling
    knowledge of compaction
    knowledge of levels and surveying

11. Installing dispensers and pumps
    knowledge of fittings
    knowledge of valves
    knowledge of types of valves
    knowledge of dispenser sumps

12. Installing shear and anchor valves and properly anchoring
    knowledge of types of anchors and when to use
    knowledge of alignment of anchors
    knowledge of concrete
    knowledge of anchor bolts
    knowledge of reinforcing requirements
    knowledge of thrust blocks
13. Determining size and capacity of vents
   knowledge of vent sizing
   knowledge of vent requirements
   knowledge of manifold tanks and siphon piping

14. Installing Stage 1 Vapor Recovery Systems
   Knowledge of single point systems
   Knowledge of dual point systems

Content Area H 5%
Above Tank Covering

1. Covering tanks with asphalt or concrete
   knowledge of site preparation
   knowledge of concrete mixture requirements
   knowledge of proper conditions for installing concrete
   knowledge of asphalt (properties, application, and site preparation)
   knowledge of finishing
   knowledge of reinforcing

2. Calculating support and buoyancy counteraction
   knowledge of soil conditions
   knowledge of determining depth of burial - from top of tank to finished grade
   knowledge of weight of materials
   knowledge of calculating reflected tank area
   knowledge of determining space occupied by materials and tank

Content Area I 10%
Leak Detection

1. Installing continuous monitoring systems
   knowledge of gauging systems
   knowledge of interstice monitoring
   knowledge of line pressure monitoring
   knowledge of observation venting
   knowledge of automatic line leak detectors

2. Maintaining tank and trench geotextile liners
   knowledge of proper installation
   knowledge of penetration fittings
   knowledge of adhesive materials
   knowledge of backfill materials
   knowledge of sub-base requirements
   knowledge of layout
   knowledge of compacting
   knowledge of seaming liner pieces

3. Installing overfill protection devices
   knowledge of fill pipe enclosure
   knowledge of vent float valve
   knowledge of inventory control procedures
   knowledge of "outage charts"
   knowledge of restricted venting

4. Installing interstitial monitoring systems
   knowledge of types of sensors
   knowledge of monitoring liquid reservoir and riser
   knowledge of testing interstitial space

5. Installing line pressure monitoring systems
   knowledge of submersible pumps
   knowledge of piping and corrosion control requirements

6. Understanding requirements for monitoring wells
   knowledge of who can install them (well driller)
   knowledge of appropriate construction methods
   knowledge of proper abandonment of monitoring wells

7. Developing ground water monitoring plans
   knowledge of D.E.P. plan approval process

8. Performing tank and line tests
   knowledge of manufacturer's equipment
   knowledge of manufacturer's procedures
   knowledge of complete and partial full test
   knowledge of air in line and purging
   knowledge of isolation points, sub pumps, and shear valves
   knowledge of proper testing equipment

Content Area J 5%
Cathodic Protection Systems

1. Maintaining and repairing cathodic protection systems
   knowledge of what is required
   knowledge of when it is required

2. Maintaining and repairing pre-engineered protection systems
   knowledge of when it is needed
   knowledge of how to install it
3. **Using dielectric fittings**  
   know ledge of product compatibility  
   knowledge of operating or test pressures

4. **Using galvanic anodes**  
   knowledge of when they are needed  
   knowledge of how to install them

5. **Maintaining and repairing impressed current systems**  
   knowledge of when they are needed  
   knowledge of how to install them

6. **Using field-applied coatings**  
   knowledge of when it is needed  
   knowledge of how to apply them

7. **Inspecting anodes and cathodic protection systems**  
   knowledge of proper testing authority and methods  
   knowledge of monthly and yearly inspections of monitors

8. **Maintaining metal cathodic protected pipes**  
   knowledge of trenching  
   knowledge of bedding  
   knowledge of tightness testing  
   knowledge of sealants  
   knowledge of appropriate sizes  
   knowledge of levels and surveying equipment

---

**Content Area K**  
**Tank Removal and Abandonment**  

1. **Disconnecting equipment and piping**  
   knowledge of safety requirements  
   knowledge of excavation

2. **Testing for adequate removal of pollutant materials in tanks and lines**  
   knowledge of safety requirements  
   knowledge of how and when to test  
   knowledge of meters (e.g., LEL, O₂)

3. **Removing tanks**  
   knowledge of excavation  
   knowledge of cranes, hoists and rigging  
   knowledge of transportation requirements

4. **Filling tanks with an inert solid**  
   knowledge of acceptable fill materials  
   knowledge of eliminating voids when filling

5. **Disposing of pollutants**  
   knowledge of local, State, and Federal laws and regulations relating to transportation and disposal  
   knowledge of excavation and backfill  
   knowledge of soil testing

6. **Cutting and cleaning tanks**  
   knowledge of testing equipment  
   (how and when to use)  
   knowledge of safety requirements  
   knowledge of confined space entry  
   knowledge of methods for cutting

7. **Methods for disposing of tanks**  
   knowledge of transporting tanks  
   knowledge of cutting methods

---

**Content Area L**  
**Equipment**  

1. **Using personal protection equipment**  
   knowledge of OSHA guidelines  
   knowledge of when to use  
   knowledge of type to use

2. **Installing warning signs and barricades**  
   knowledge of Florida Dept. of Transportation guidelines  
   knowledge of Federal transportation guidelines  
   knowledge of warning sign requirements  
   knowledge of regulatory signs  
   knowledge of warning sign requirements  
   knowledge of barricades and channel devices and requirements  
   knowledge of marking requirements  
   knowledge of lighting devices  
   knowledge of control of traffic through work areas  
   knowledge of expressways and limited access facilities

3. **Wearing eye and face protection**  
   knowledge of OSHA guidelines

4. **Using respiratory protection**  
   knowledge of toxic fumes  
   knowledge of when and how to use
5. Digging with backhoes, trenchers and tractors
   knowledge of lifting capacities
   knowledge of safety requirements
   knowledge of road requirements

6. Using overhead hoists and cranes
   knowledge of lifting capacities
   knowledge of rigging requirements

7. Ensuring adequate ventilation
   knowledge of safety requirements
   knowledge of when necessary

8. Using chlorine and hydrocarbon gas leak detection devices
   knowledge of when and how to use

9. Consider grounding and combustibility
   knowledge of static electricity
   knowledge of lower explosive limits (LEL)
   knowledge of explosion proof equipment