OVERVIEW OF THE EXAMINATION

The tank tester license examination covers a wide range of the underground storage tank tester’s work emphasizing those skills commonly practiced throughout the State of California. The questions are based on extensive research of accepted trade practices, and assistance was provided by the representatives of state and local regulatory agencies, tank testers, and equipment manufacturers. This research has defined the specific knowledge and skills needed for proper tank testing. All exam questions are based on information found in the study references listed.

THE TANK TESTER LICENSE EXAMINATION IS STRUCTURED AROUND VOLUMETRIC TESTING PRINCIPLES. IT ALSO ADDRESSES GENERIC PROCEDURES COMMON TO TESTING AND DOES NOT REFLECT MANUFACTURER’S SPECIFICATIONS. WE RECOMMEND THAT INDIVIDUALS USING NONVOLUMETRIC TESTING PROCEDURES REVIEW THE STUDY MATERIAL CAREFULLY.

TAKING THE EXAMINATION

Please bring the following materials with you to the exam:

- Form of identification which contains your photograph;
- A battery-powered calculator (optional); and
- Two (2) pencils (any type lead is fine).

NO NOTES, BOOKS, OR REFERENCE MATERIALS MAY BE TAKEN INTO THE EXAMINATION ROOM.

When you take the exam, you will be given an exam booklet and a separate answer sheet. For each question, fill in the circle on the answer sheet that matches the answer you choose. If you need to change a response, be sure to erase your first answer completely.
EXAMINATION QUESTIONS

The tank tester license exam covers the following five (5) subjects:

- Preparing for a tank test;
- Conducting a tank test;
- Responding to test data;
- Post-test activities; and
- General safety

The tank tester license exam consists of 90 multiple-choice questions. There are four (4) choices for each question and only one (1) choice is the correct answer. Read each question carefully. Give special attention to key words such as NEVER, BEST, BETTER, MOST, or LEAST. There are no “trick” questions on the exam.

Choose the one (1) best answer for each question.

Questions vary in form and level of difficulty. The following description of the major types of exam questions will guide you in preparing for the exam. (Answers to sample questions are on Page 3.)

Procedural Correctness Questions

- Some questions describe a procedure and ask you to decide whether the procedure was correct. If the procedure was incorrect, you will be asked to choose the answer that explains why it was incorrect:

  EXAMPLE

  1. You have placed five (5) gallons of Class I-C liquid in a metal container. According to CAL/OSHA, you have proceeded:

     a) correctly
     b) incorrectly; only approved plastic containers may be used for Class I-C liquids.
     c) incorrectly; only glass containers may be used for Class I-C liquids.
     d) incorrectly; containers for Class I-C liquids may hold no more than two gallons.

Fill-in-the-Blank Questions

- Some questions ask you to fill in the blank with a choice that will make a statement TRUE. Other questions will ask you to select a phrase that will make the statement TRUE.

  EXAMPLE

  2. Significant changes in product level can cause _____________, which can in turn cause an apparent volume change.

     a) layering
     b) vapor pockets
     c) product evaporation
     d) structural deformation
Choose A Phrase

- Some questions ask you to choose one phrase that best completes a statement.

EXAMPLE

3. On night deliveries in which the tank is topped, a warmer underground tank temperature can cause considerable:

   a) contraction of the product
   b) evaporation of the product
   c) overflow due to expansion of the product
   d) overflow due to contraction of the product

STUDY REFERENCES

The attached Study Outline lists the specific subject areas that you may wish to review when preparing for the exam. Each section in the outline lists study references immediately below the subject.

EXAMPLE

General Safety

1. Establish fire safety precautions

   1) Reference 6: Section 5159

   In this instance, one reference is suggested for studying the subject. Refer to the Study Reference list for Reference 6, which is the California Code of Regulations, Title 8, “Industrial Relations”. Review of Section 5159 will assist you in preparing for the exam questions on this subject.

We have enclosed copies of the reference materials except for Reference 4, which is a copyrighted publication. See last page of this Study Guide for more information on references.

*************

Answers to Sample Questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
</tr>
</tbody>
</table>
STUDY OUTLINE

A. Preparing for a Tank Test

1. Site information
   a. Reference 4, Chapter 1

2. Tank history
   a. Reference 2, Article 2
   b. Reference 3, Section 5
   c. Reference 5, Section 280.12

3. Water table
   a. Reference 1, Chapter 5
   b. Reference 3, Section 5
   c. Reference 4, Chapter 4

4. Identifying product characteristics
   a. Reference 3, Section 5
   b. Reference 4, Chapter 4

5. Dispensers
   a. Reference 3, Section 5
   b. Reference 6, Section 5569

6. Filling a tank
   a. Reference 1, Chapter 4
   b. Reference 2, Section 2650
   c. Reference 3, Section 5
   d. Reference 4, Chapter 4
   e. Reference 5, Section 280.53

7. Spills
   a. Reference 7, Section V

8. Water in the tank
   a. Reference 1, Chapter 4

9. Pumps
   a. Reference 7, Section III
B. Conducting a Tank Test

1. Sensors
   a. Reference 1, Chapter 4
   b. Reference 4, Chapter 4
   c. Reference 8, Section 9.5

2. Piping
   a. Reference 1, Chapter 4
   b. Reference 4, Chapter 1
   c. Reference 7, Section III

3. Vapor recovery systems
   a. Reference 8, Section 12.1

4. Equipment calibration
   a. Reference 4, Chapter 4

5. Tank stability
   a. Reference 3, Section 5
   b. Reference 4, Chapter 4

6. Coefficient of expansion of product
   a. Reference 1, Chapter 4
   b. Reference 3, Section 5
   c. Reference 4, Chapter 4

7. Recording data
   a. Reference 4, chapters 2 and 4

8. Monitoring data
   a. Reference 3, Section 5
   b. Reference 4, Chapter 4

9. Product line test
   a. Reference 1, Chapter 4
   b. Reference 2, Section 2643
C. Responding to Test Data

1. Variances/trends
   a. Reference 1, Chapter 4
   b. Reference 3, Section 5
   c. Reference 4, Chapter 4

2. Venting the tank
   a. Reference 4, Chapter 4

3. Manways
   a. Reference 3, Section 5
   b. Reference 4, Chapter 4

4. Vapor recovery systems
   a. Reference 8, Section 12.2

5. Valves
   a. Reference 1, Chapter 4

6. Air eliminators
   a. Reference 7, Section III

D. Post-Test Activities

1. Pipe location
   a. Reference 7, Section III

2. Weather Effects
   a. Reference 4, Chapter 4

3. Recalibration
   a. Reference 4, Chapter 2

4. Determining leak rate
   a. Reference 4, chapter 4
   b. Reference 5, Section 280.40
5. Communicating with the client
   a. Reference 1, Chapter 4
   b. Reference 2, Section 2643
   c. Reference 5, Section 280.40
   d. Reference 7, Section II

E. General Safety

1. Fire safety precautions
   a. Reference 6, Sections 5415, 5572, and 6150

2. Protective equipment
   a. Reference 6, Section 5159

3. Safety barriers
   a. Reference 6, Sections 5532 and 5581
   b. Reference 4, Chapter 2
GLOSSARY OF ACRONYMS AND ABBREVIATIONS

The following acronyms and abbreviations are widely used in reference materials and in the tank testing trade. You should become familiar with them here because they will not appear in full text in the examination.

1. COE – Coefficient of Expansion
2. EPA – Environmental Protection Agency
3. UST – Underground Storage Tank
4. GPM – Gallons Per Minute
5. GPH – Gallons Per Hour
6. CAL/OSHA – California Occupational Safety and Health Administration
7. NFPA – National Fire Protection Association
STUDY GUIDE FOR THE UNDERGROUND STORAGE TANK TESTERS LICENSING EXAM

STUDY GUIDE REFERENCE LIST

We have copied and enclosed only the pertinent portions of each of these publications. If you prefer, you may order the complete document as indicated.

Reference 4, “Underground Storage Systems” is a copyrighted book so we cannot include it with the rest of the reference materials. You may order a copy of the book from the publisher (Lewis Publishers) by calling 1-800-272-7737 or 313-475-8619. The book currently sells for $59.95. You may find the book in local bookstores, which carry technical references, or at a college or university campus.


2. California Code of Regulations, Title 23, Chapter 17 (available at https://www.waterboards.ca.gov/ust/tank_testers/docs/chapter17.pdf)


