



## 3.6 Performing Railcar Product Transfers



# 3.6 Performance-Based Skill Assessment Evaluation Packet

- 3.6.2 Identifying Railcar Documentation, Condition, and Spotting Procedures
- 3.6.3 Examining Bulk Plant Railcar Unloading Systems
- 3.6.4 Verifying the Presence of Propane Odorant
- 3.6.5 Unloading a Railcar Using a Plant Compressor
- 3.6.6 Identifying Railcar Area Security Procedures

The CETP Performance Evaluation / Employer Record for 3.6 must be received by the test processing center within 12 months of the date of the certification candidate's written examination for the candidate to be certified in Performing Railcar Product Transfers.

---

Employee's Name (Please Print)

---

Date of Skills Evaluation

---

Skills Evaluator Name (Please Print)

**NOTICE: THE SKILLS EVALUATOR MUST BE THE EMPLOYEE'S SUPERVISOR OR SOME OTHER QUALIFIED PERSON WHO HAS COMPLETED CETP "PERFORMING RAILCAR PRODUCT TRANSFERS" OR IS FAMILIAR WITH THE SUBJECT MATTER. CETP CERTIFICATION REQUIRES THAT THE EMPLOYEE SEEKING CERTIFICATION CANNOT ACT AS HIS/HER OWN EVALUATOR.**

## Table of Contents

---

<b>General Instructions</b> .....	3
Instructions for Use.....	3
Instructions to the Employee .....	3
Instructions to the Skills Evaluator.....	4
<b>Task Information</b> .....	4
<b>Employer Record</b> .....	9

---

Users of this material should consult the law of their individual jurisdictions for codes, standards and legal requirements applicable to them. This material is not intended to be an exhaustive treatment of the subject, and should not be interpreted as precluding other procedures that would enhance safe LP-gas operations. This training material merely suggests methods the user may find useful in implementing applicable codes, standards, and legal requirements. This publication is not intended nor should it be construed to (1) set forth procedures which are the general custom or practice in the propane industry; (2) to establish the legal standards of care owed by propane distributors to their customers; or (3) to prevent the reader from using different methods to implement applicable codes, standards or legal requirements. This material was designed to be used as a resource only to assist expert and experienced supervisors and managers in training personnel in their organizations and does not replace federal, state, local, or company safety rules. The user of this material is solely responsible for the method of implementation. The Propane Research and Education Council, the National Propane Gas Association, CASTLE Worldwide and Industrial Training Services, Inc. assume no liability for reliance on the contents of this training material.

Issuance of this material is not intended to nor should it be construed as an undertaking to perform services on behalf of any party either for their protection or for the protection of third parties.

# I. General Instructions

---

## Instructions for Use

This **Performance Based Skill Assessment Evaluation Packet** is designed to:

- provide structured on-the-job training for the LP-gas employee under the direction of an experienced and qualified skills evaluator, and
- standardize conditions under which the employee demonstrates his/her performance of tasks that meet the requirements of the NPGA Certified Employee Training Program.

Each task is divided into one or more operations on which the employee's performance is evaluated. Each operation is designated by the following symbol: . Also, under each operation is a performance guide that establishes the standard used by the skills evaluator.

When an operation within a task is successfully performed by the employee according to the criteria listed in the performance guide, a check (✓) is placed in the .

After completing the checklist for those operations required in the employee's job duties, the skills evaluator and employee must sign their respective affidavits. Section IV (page 9 and page 10) is photocopied for the company's personnel training record files. **The original of Section IV, pages 9 and 10, must be forwarded to the appropriate test processing facility to complete certification.**

**On-line Test Candidates:**  
**CASTLE Worldwide**  
**900 Perimeter Park Drive, Suite G**  
**Morrisville, NC 27560**

**Paper test Candidates:**  
**Industrial Training Services, Inc.**  
**310 C.C. Lowry Drive**  
**Murray, KY 42071**

## Instructions to the Employee

The Performance Based Skill Assessment Evaluation Packet is designed as a training guide to assist you and your evaluator in performing the tasks listed on the front cover. Practice the tasks as many times as needed to become confident and proficient with the documents or equipment. Your skills evaluator will check and observe your performance using the checklist included in each hands-on task assignment.

The employee must adhere to all safety precautions. If a safety precaution is violated, then the demonstration shall be stopped and the skills evaluator must instruct the employee on the proper safety procedures that apply before allowing the employee to continue.

The packet is designed to establish the basic conditions under which the employee demonstrated his/her level of knowledge and proficiency.

## Instructions to the Skills Evaluator

Review Section II, "Task Information."

Conduct the training as follows:

- Give a copy of the Performance Based Skill Assessment Evaluation Packet to the employee.
- Review all of the instructions with the employee and answer any questions or concerns about how it will be used.
- Demonstrate and/or talk the employee through each of the steps required to do the task.
- Allow the employee time to ask questions and/or study the steps.
- Observe the employee performing the required steps; correct him/her as needed.
- Allow the employee to practice until he/she is confident.
- Evaluate the employee at his/her request.
- Complete Section III, "Employee Performance Checklist," beginning on page 5.
- Complete **both** pages of Section IV, "Employer Record," which **must be signed and dated by both the Skills Evaluator and employee** on page 9.
- Remove Section IV (pages 9 and 10) from the packet and photocopy. Retain photocopy for your files. **For employee certification this form must be received within 12 months of the Certifying Examination date.** Mail original to:

**On-line Test Candidates:**

CASTLE Worldwide  
900 Perimeter Park Drive, Suite G  
Morrisville, NC 27560

**Paper test Candidates:**

Industrial Training Services, Inc.  
310 C.C. Lowry Drive  
Murray, KY 42071

- This Evaluation Packet and the photocopy of Section IV (pages 9 and 10) should be retained in the Company's employee training files.

## II. Task Information

---

**Certification Standard:** The employee's certification is based on satisfactory completion of the operations listed under each task in the Performance Based Skill Assessment Evaluation Packet and a Mastery Score on the Certification Area Examination.

**Prerequisites:** Successful completion of CETP Certification Area 3.6, "Performing Railcar Product Transfers."

**References:** Applicable LP-Gas Codes and company policies.

**Evaluation:** The skills evaluator must be the employee's supervisor or some other qualified person who has completed CETP "Performing Railcar Product Transfers" or is familiar with the subject matter. CETP certification requires that the employee seeking certification cannot act as his/her own evaluator.

### III. Employee Performance Checklist—3.6

Print or type all entries except signatures and initials.

Employee Name \_\_\_\_\_

Social Security No. \_\_\_\_\_ Date \_\_\_\_\_

Skill Evaluator (Please Print) \_\_\_\_\_

I, \_\_\_\_\_, hereby attest the employee named on  
(Skill Evaluator's Signature)

top line of this section has demonstrated the correct performance of the tasks listed below and on following pages.

<p style="text-align: center;"><b>Task 3.6.2</b> <b>Examining Railcar Documentation, Condition, and Spotting Procedures</b></p>
---

The employee is qualified to perform Task 3.6.2a at the following level:

**Satisfactory**



**Examining Railcar Documentation, Condition, and Spotting Procedures. 3.6.2a**

*Performance Guide:* At the bulk plant or terminal rail spur, the person being evaluated for certification:

1. Examined a railcar bill of lading, verifying the identity of the product and quantity shipped by checking the:
  - Liquid specific gravity
  - Shipping name
  - Railcar Capacity
  - Gallons loaded
  - Company the cargo was consigned to
2. Examined the railcar to determine that it was properly spotted by checking:
  - To ensure that the hand brake was properly set
  - For damage to the railcar
  - For proper placarding and shipping markings
  - For leakage at any point on the cargo tank or dome
  - The railcar number to verify it matched the bill of lading
  - Proper DOT specification, tests and inspection markings
  - To ensure that the car was properly located at the railcar unloading riser
  - To ensure that the dome seal was intact and there were no indications of tampering
3. Documented the items as found listed above on company specified forms or documents, and if any abnormal condition was found, immediately notified the facility supervisor or manager and the railroad company.
4. Properly placed wheel chocks in front and behind a wheel of the railcar and placed the required warning sign(s).

### Task 3.6.3

#### Examining Bulk Plant Railcar Unloading Systems

The employee is qualified to perform Task 3.6.3a at the following level:

Satisfactory

**Examining Bulk Plant Railcar Unloading Systems. 3.6.3a**

*Performance Guide:* At a bulk plant or railcar terminal, the person being evaluated for certification:

1. Located the data plate on each bulk storage tank and called out each tank's:
  - a. Working Pressure
  - b. Water Gallon Capacity
  - c. Outside Diameter
2. Identified the liquid and vapor piping circuits from each bulk storage tank to and from the:
  - a. Unloading compressor
  - b. Railcar riser
3. Explained how to avoid overfilling bulk storage tanks inter-connected at their bottom openings when unloading:
  - a. Using a compressor;
  - b. Where bulk tanks of different diameters are inter-connected, but installed so that their maximum liquid fill levels are not at the same height.
4. Verified that container valves and fittings were in good operating condition and leak-free.
5. Inspected the bulk plant transfer hoses used in unloading operations to determine that they were free of hose rejection criteria defects.
6. Examined the railcar unloading fittings and ESVs and verified they were in good working order.
7. Located and explained how to use the bulk plant emergency shutdown controls.

### Task 3.6.4

#### Verifying the Presence of Propane Odorant

The employee is qualified to perform Task 3.6.4a at the following level:

Satisfactory

**Verifying the Presence of Propane Odorant. 3.6.4a**

*Performance Guide:* At a bulk plant or railcar terminal and wearing suitable personal protective equipment (PPE), the person being evaluated for certification:

1. Using proper sampling equipment, obtained a liquid product sample from the railcar sampling valve and used the company-specified method for determining that the product was odorized; and/or
2. Vented a small quantity of vapor and performed a "sniff test" to determine that the odorant in the LP-gas was detectable by smell.
3. Documented the results of the product odor verification on company-designated forms.
4. Explained the procedures to apply if odorant cannot be detected.

## Task 3.6.5 Unloading Railcars Using the Plant Compressor

The employee is qualified to perform Task 3.6.5 at the following level:

### Satisfactory



#### **Unloading Railcars Using the Plant Compressor. 3.6.5a**

*Performance Guide:* At a bulk plant or railcar terminal and wearing suitable personal protective equipment (PPE), the person being evaluated for certification unloaded a railcar, completing the following:

1. Properly used the slip tube gauge or other liquid level gauging device (applying appropriate safety measures) and the railcar outage table to determine the number of gallons in the railcar.
2. Recorded the gauged gallons on any company designated receiving or inventory documents, then determined that the bulk storage tanks had sufficient capacity to store the railcar's contents without overfilling the bulk storage tanks.
3. Inspected the liquid and vapor hoses and ESVs to ensure that they were in good condition and proper working order.
4. Checked the manual shutoff valves on the railcar liquid and vapor connections to make sure they are fully closed then carefully removed the plugs.
5. Installed unloading stubs or ESVs in the railcar liquid and vapor valves, threading the stubs or ESVs into the valve opening until they were hand-tight. Then tightened them with the appropriate wrench until they are securely seated. Once installed, opened the ESVs in accordance with company procedures.
6. Removed the dust caps from the connectors on the riser hoses. Checked the connectors to be sure they were clean. Checked the O-rings on the ESV or unloading stub to be sure they were in good condition. If necessary, cleaned the connectors with a rag and replaced worn, flattened, or damaged O-rings.
7. Connected the hoses to the railcar stubs or ESVs by spinning on the ACME connectors until they were hand-tight. As the connectors were tightened, moved the hose or hose-end valve up and down slightly to prevent the thread from seizing. When each connection was hand-tight, tightened it an additional 1/8 turn with a hook or spanner wrench.
8. Checked the ESVs at the riser by opening and closing them according to plant test procedures. Ensured the remote operators were working properly and that all fusible links were intact. If the ESVs did not operate properly, discontinued the transfer operation, and if possible, corrected the problem.
9. Checked each connection for leaks by opening and closing the manual shutoff valve at the railcar to charge the connection with propane.
10. Opened the vapor valves at the riser. Then, opened all valves in the liquid line, starting at the manual shutoff valves on the railcar and working toward the plant storage tank(s). Allowed as much liquid as possible to drift between the tanks, then opened the remaining valves in the vapor line.
11. Checked to be sure the four-way valve and the plant valves had been set so the compressor would remove vapor from the plant storage tank and discharge it into the railcar.
12. Checked the oil level in the compressor crankcase, and verified that there was not LP-gas liquid in the compressor liquid trap.
13. Started the compressor and checked the pressure gauges for excessively high exhaust or excessively low intake pressure. If either occurred, stopped the compressor and corrected the problem before continuing. Checked the sight glass or flow indicator to make sure liquid was flowing through the system.
14. Stayed in attendance throughout the unloading operation, monitoring the compressor, receiving tanks and the railcar connections.
15. When the plant storage tank reached its maximum permitted filling level or the railcar was empty, closed all valves in the liquid line and stopped the compressor.
16. Reversed the four-way valve and adjusted the plant piping manifold so the compressor would withdraw vapor from the railcar and force it through the liquid space of the plant storage tank.

Checklist continues on the next page.

17. Restarted the compressor and checked the pressure gauges for excessively high discharge or excessively low intake pressure. If either occurred, shut down the compressor and corrected the problem before continuing.
18. Remained in attendance throughout the vapor recovery process, monitoring the compressor, receiving tanks and the railcar connections.
19. At the end of the vapor recovery operation when the conditions set out in the plant operating procedures for stopping vapor recovery were obtained, closed all valves in the vapor line and shut down the compressor.
20. Properly completed any company designated inventory records.

**The employee is qualified to perform Task 3.6.5b at the following level:**

**Satisfactory**

**Preparing the Railcar for Return. 3.6.5b**

*Performance Guide:* At a bulk plant or railcar terminal and wearing suitable personal protective equipment (PPE), the person being evaluated for certification unloaded a railcar, completing the following:

1. Briefly opened the sampling valve to determine if the railcar was fully unloaded of liquid LP-gas.
2. Closed all railcar discharge valves, ESVs and transfer hose-end valves.
3. Vented the propane trapped between valves, stubs and hose couplings. When the connections were fully de-pressurized, disconnected the transfer hoses.
4. Removed the railcar unloading nipples, or "stubs", that were screwed into the railcar valve outlets.
5. Replaced and tightened the plugs of all railcar valves openings as appropriate.
6. Replaced and secured all covers over fittings.
7. Checked to be sure there is no liquid left in the railcar by partially opening the sampling valve.
8. Replaced all dust caps and stored the transfer hoses and fittings on the riser.
9. Tagged any deficiency of a railcar valve or fitting as appropriate.
10. Closed and secured the railcar dome.
11. Raised and secured the railcar riser platform.



<p><b>Task 3.6.6</b>  <b>Identifying Railcar Security Procedures</b></p>
--

**The employee is qualified to perform Task 3.6.6a at the following level:**

**Satisfactory**



**Identifying Bulk Plant or Terminal Security Measures. 3.6.6a**

*Performance Guide:* The person being evaluated for certification:

1. Identified the location of the written hazardous materials transportation security plan that applied to the bulk plant.
2. Explained each of the following:
  - Measures to apply if an unauthorized person enters restricted areas of the bulk plant;
  - How and to whom reports of suspicious persons are to be made;
  - Security measures that apply to hazardous materials and hazardous materials containers stored in the bulk plant.
  - Security measures that apply to vehicles used to transport hazardous materials.
  - Security measures that apply when the bulk plant is left unattended.
  - Any other security measures given in the company's written plan not listed above.

## IV. CETP Performance Evaluation / Employer Record (3.6)

**THIS PAGE MUST BE RETURNED AS SOON AS POSSIBLE, BUT NO LATER THAN 12 MONTHS AFTER TAKING THE CERTIFICATION TEST, TO THE FOLLOWING ADDRESS:**

**On-line Test Candidates:**

CASTLE Worldwide  
900 Perimeter Park Drive, Suite G  
Morrisville, NC 27560

**Paper test Candidates:**

Industrial Training Services, Inc.  
310 C.C. Lowry Drive  
Murray, KY 42071

**Employee Information:** (print or type) Test Group Number (if known): \_\_\_\_\_

Name \_\_\_\_\_ Social Security Number \_\_\_\_\_

Employer \_\_\_\_\_

Address \_\_\_\_\_

City, State: \_\_\_\_\_ Zip Code \_\_\_\_\_

### ***Affidavit***

I affirm that I am the person who has performed those items checked on this checklist. I acknowledge that the performance checklists used are solely for the purpose of skills assessment for the CETP certification requirements, and are not intended to replace or modify company operating or safety procedures, and may not be appropriate for use in all circumstances. I acknowledge that I am responsible for recognizing hazards and abnormal conditions in my workplace and must exercise care and good judgment, always using appropriate equipment, procedures and tools for the tasks I perform. The Propane Education and Research Council, the National Propane Gas Association, CASTLE Worldwide and Industrial Training Services, Inc. assume no liability for my actions, or for my application of the skills assessment performance guides used in this evaluation checklist.

Employee's Signature \_\_\_\_\_ Date \_\_\_\_\_

---

**Skills Evaluator Information:** (print or type)

Name \_\_\_\_\_

Organization/Employer \_\_\_\_\_

Telephone Number \_\_\_\_\_

### ***Affidavit***

I affirm that I am the person who has administered this checklist, and that I have conducted this employee skills assessment with integrity. I also affirm that the above named employee is the person whose performance I evaluated, and that the above named person performed the checked tasks at the indicated level without assistance from me or any other person.

Skill Evaluator's Signature \_\_\_\_\_ Date \_\_\_\_\_

The employee is qualified to perform the listed operations at the following level:

**Without  
Direct  
Supervision**

<input type="checkbox"/>	<b>Examining Railcar Documentation, Condition, and Spotting Procedures. 3.6.2a</b>
<input type="checkbox"/>	<b>Examining Bulk Plant Railcar Unloading Systems. 3.6.3a</b>
<input type="checkbox"/>	<b>Verifying the Presence of Propane Odorant. 3.6.4a</b>
<input type="checkbox"/>	<b>Unloading Railcars Using the Plant Compressor. 3.6.5a</b>
<input type="checkbox"/>	<b>Preparing the Railcar for Return. 3.6.5b</b>
<input type="checkbox"/>	<b>Identifying Bulk Plant or Terminal Security Measures. 3.6.6a</b>

---

After completion of Section IV, "Employer Record," remove pages 9 and 10 from the packet and photocopy. Retain photocopy for your files. Mail original to:

On-line Test Candidates:

CASTLE Worldwide  
900 Perimeter Park Drive, Suite G  
Morrisville, NC 27560

Paper test Candidates:

Industrial Training Services, Inc.  
310 C.C. Lowry Drive  
Murray, KY 42071