3.5 Performance-Based Skill Assessment Evaluation Packet

3.5.2a	**Identifying Features of Cargo Tank Loading and Unloading Systems.**
3.5.5a	**Identifying Components of Bulk Plant Loading/Unloading Systems & Written Operating Procedures.**
3.5.4a	**Inspecting Cargo Tank Delivery Hose Assemblies & Emergency Discharge Control Systems.**
3.5.6a	**Loading a Cargo Tank Using a Plant Pump.**
3.5.6b	**Loading a Cargo Tank Using a Plant Compressor.**
3.5.6c	**Loading a Cargo Tank Using a CTMV Pump Through an Auxiliary Inlet.**
3.5.7a	**Unloading a Bobtail Cargo Tank in Metered Delivery Service.**
3.5.9a	**Unloading a Transport in Non-Metered Delivery Service Using a Compressor.**
3.5.10a	**Reducing Cargo Tank Vapor Pressure Using a Plant Compressor.**
3.5.9b	**Unloading a Transport in Non-Metered Delivery Service Using the CTMV Pump.**

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

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 14 and page 15) is photocopied for the company's personnel training record files. **The original of Section IV, pages 14 and 15, 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 15.
- Remove Section IV (pages 14 and 15) 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 14 and 15) 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 3.5, "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—3.5

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.

Task 3.5.2
Identifying Features of Cargo Tank Loading and Unloading Systems

The employee is qualified to perform Task 3.5.2a at the following level:

Satisfactory ☐

Identifying Features of Cargo Tank Loading and Unloading Systems. 3.5.2a

Performance Guide: The person being evaluated for certification, with the vehicle engine shut down, identified the following features and their functions on a bobtail and a transport cargo tank:

1. The internal self-closing stop valve
2. The cargo tank motor vehicle pump
3. The PTO controls for engaging the pump
4. The discharge piping
5. The filler valve and connection
6. The vapor equalizing valve and connection
7. The delivery hose assembly
8. The vapor equalizing hose (if applicable)
9. The liquid meter (if applicable)
10. The automatic bypass valve on a bobtail
11. The emergency shutdown station(s)
12. The emergency discharge control system
13. The hand-held off-truck remote shutdown control (if applicable)
14. The written unloading and emergency discharge control procedures

Task 3.5.5
Identifying Bulk Plant Loading/Unloading Systems & Written Operating Procedures

The employee is qualified to perform Task 3.5.5a at the following level:

Satisfactory ☐

Identifying Components of Bulk Plant Loading/Unloading Systems & Written Operating Procedures. 3.5.5a

Performance Guide: At a bulk plant, 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
    a. Outside Diameter
2. Identified the liquid and vapor piping circuits from each bulk storage tank to and from the:
    b. Unloading bulkhead
    c. Unloading compressor, if applicable
    d. Loading pump and bulkhead
3. Explained how to avoid overfilling bulk storage tanks inter-connected at their bottom openings when unloading:
    e. Using a compressor;
    f. Using the cargo tank or plant unloading pump;
    g. 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. Located and explained how to use the bulk plant emergency shutdown controls.
7. Identified the location of written and/or posted bulk plant operating procedures.

Task 3.5.4
Inspecting Cargo Tank Delivery Hose Assemblies & Emergency Discharge Control Systems

The employee is qualified to perform Task 3.5.4a at the following level:

Satisfactory

☐

Inspecting Cargo Tank Delivery Hose Assemblies & Emergency Discharge Control Systems. 3.5.4a

Performance Guide: On a bobtail or transport, The employee being evaluated for certification:

1. Located the written emergency shutdown and unloading procedures for the cargo tank motor vehicle (CTMV).
2. Inspected those portions of the cargo tank discharge system readily visible during unloading for rejection criteria (conditions that prohibit loading or unloading), including the following:
    a. Any external leak identifiable without the use of instruments
    b. Bolts that are loose, missing, or severely corroded
    c. Manual stop valves that will not actuate.

Checklist continues on the next page.

d. Rubber hose flexible connectors with any condition listed in the hose rejection criteria
e. Stainless steel flexible connectors with damaged reinforcement braid Internal self-closing stop valves that fail to close or that permit leakage through the valve detectable without the use of instruments
f. Pipes or joints that are severely corroded

3. Inspected and operated each emergency shutdown station or device.
4. If the cargo tank was equipped with a remote emergency shutdown device (off-truck emergency shutdown transmitter), tested the remote device for proper operation at a distance of 150 feet from the cargo tank.
5. If the cargo tank was equipped with a passive emergency shutdown system or device, demonstrated how to prepare the system or device for cargo tank loading and unloading and explained any other emergency shutdown requirements that applied to the CTMV and the bulk plant.
6. Inspected the condition of the delivery hose assembly to assure none of these DOT hose rejection criteria were present:
   a. Damage to the hose cover that exposes the reinforcement
   b. Wire braid reinforcement that has been kinked or flattened so as to permanently deform the wire braid
   c. Bulging under pressure, or loose outer covering
   d. Damaged, slipping, or excessively worn hose couplings
   e. Loose or missing bolts or fastenings on bolted hose coupling assemblies

   If a transport delivery hose:
   f. Soft spots when not under pressure

Task 3.5.6
Loading a Cargo Tank

The employee is qualified to perform at <u>least one</u> of Tasks 3.5.6a, or 3.5.6b, or 3.5.6c at the following level:

<u>Satisfactory</u>

☐

Loading a Cargo Tank Using a Plant Pump. 3.5.6a

Performance Guide: The person being evaluated for certification:

1. Properly located the vehicle at the loading bulkhead.
2. Secured the vehicle against movement by setting the parking brake and placing chock blocks in front and behind a wheel according to company procedures, and shut down the engine.
3. Wearing proper personal protective equipment, determined the proper setting for the cargo tank liquid level gauge for proper filling level based on the liquid temperature and specific gravity of the product.
4. Inspected the condition of the bulk plant piping and valves and determined the proper valve positions for loading the cargo tank.
5. Verified proper condition and locations of the ESVs and remote emergency shutdown controls.
6. Inspected the condition of the bulk plant transfer hoses.
7. After determining that the liquid and vapor cargo tank inlet valves were closed, removed the caps from the cargo tank loading connections, and inspected the condition of ACME threads and the o-ring or gasket.
8. Inspected the transfer hose connections, made the liquid and vapor connections hand-tight, then appropriately used a spanner wrench to complete the hose connections.
9. Slightly opened the hose-end valves and checked for leakage.
10. Completed preparation for transfer by:
    - Placing the cargo tank emergency discharge system in the loading status if applicable;
    - Opened the cargo tank filling valve, bulkhead ESVs, hose-end valves, and appropriated bulk tank and piping valves.
    - Operated the pump switch to start the loading of the cargo tank.
    - Verified gas odorization according to company policies and procedures

Checklist continues on next page. **Skills Evaluator, see note on page 9.**

11. Remained in attendance through out the transfer operation in a position to shutdown the pump, and activate emergency controls if required.
12. When liquid propane was detected at the fixed maximum liquid level gauge or at the set point for the liquid level gauge, shutdown the transfer pump, and closed the ESVs, the hose-end valves, cargo tank valves, bulk tank valves and piping valves.
13. Properly vented the gas trapped in the hose connections between the hose-end valves and the cargo tank valves.
14. Replaced the dust covers on the cargo tank inlets and the transfer hoses, and properly stowed the transfer hoses.
15. Performed a walk-around inspection of the vehicle, and prepared it for movement.
16. Secured any bulk plant access gates opened for the loading operation or valve locks and controls security measures.

Satisfactory ☐ **Not Applicable*** ☐

*Not applicable means that this person's job description does not require the person to perform this task or that the required equipment was not available.

Loading a Cargo Tank Using a Plant Compressor 3.5.6b

Performance Guide: The person being evaluated for certification:

1. Properly located the vehicle at the loading bulkhead.
2. Secured the vehicle against movement by setting the parking brake and placing chock blocks in front and behind a wheel according to company procedures, and shut down the engine.
3. Wearing proper personal protective equipment, determined the proper setting for the cargo tank liquid level gauge for proper filling level based on the liquid temperature and specific gravity of the product.
4. Inspected the condition of the bulk plant piping and valves and determined the proper valve positions for loading the cargo tank.
5. Verified proper condition and locations of the ESVs and remote emergency shutdown controls.
6. Inspected the condition of the bulk plant transfer hoses.
7. After determining that the liquid and vapor cargo tank inlet valves were closed, removed the caps from the cargo tank loading connections, and inspected the condition of ACME threads and the o-ring or gasket.
8. Inspected the transfer hose connections, made the liquid and vapor connections hand-tight, then appropriately used a spanner wrench to complete the hose connections.
9. Slightly opened the hose-end valves and checked for leakage.
10. Completed preparation for transfer by.
    - Placing the cargo tank emergency discharge system in the loading status if applicable;
    - Opened the cargo tank filling valve, bulkhead ESVs, hose-end valves, and appropriated bulk tank and piping valves.
    - Inspected the compressor verifying the proper crankcase oil level, and that only vapor was present in the liquid trap.
    - Verified the proper position of the 4-way valve, and piping valves for cargo tank loading.
    - Operated the compressor switch to start the loading of the cargo tank.
    - Verified gas odorization according to company policies and procedures
11. Remained in attendance through out the transfer operation in a position to shutdown the compressor, and activate emergency controls if required.
12. When liquid propane was detected at the fixed maximum liquid level gauge or at the set point for the liquid level gauge, shutdown the compressor, and closed the ESVs, the hose-end valves, cargo tank valves, bulk tank valves and piping valves
13. Properly vented the gas trapped in the hose connections between the hose-end valves and the cargo tank valves.
14. Replaced the dust covers on the cargo tank inlets and the transfer hoses, and properly stowed the transfer hoses.
15. Performed a walk-around inspection of the vehicle, and prepared it for movement.
16. Secured any bulk plant access gates opened for the loading operation or valve locks and controls security measures.

Satisfactory	Not Applicable*
☐	☐

*Not applicable means that this person's job description does not require the person to perform this task or that the required equipment was not available.

Loading a Cargo Tank Using a CTMV Pump Through an Auxiliary Inlet 3.5.6c

Performance Guide: The person being evaluated for certification:

1. Properly located the vehicle at the loading bulkhead.
2. Secured the vehicle against movement by setting the parking brake and placing chock blocks in front and behind a wheel according to company procedures, and shut down the engine.
3. Wearing proper personal protective equipment, determined the proper setting for the cargo tank liquid level gauge for proper filling level based on the liquid temperature and specific gravity of the product.
4. Inspected the condition of the bulk plant piping and valves and determined the proper valve positions for loading the cargo tank.
5. Verified proper condition and locations of the ESVs and remote emergency shutdown controls.
6. Inspected the condition of the bulk plant transfer hoses.
7. After determining that the liquid and vapor cargo tank inlet valves were closed, removed the caps from the cargo tank loading connections, and inspected the condition of ACME threads and the o-ring or gasket.
8. Installed female ACME to male ACME adapter on the cargo tank filler connection and auxiliary inlet as appropriate.
9. Connected the cargo tank delivery hose assembly to the fill connection.
10. Inspected the transfer hose connections, made the liquid and vapor connections hand-tight, then appropriately used a spanner wrench to complete the hose connections.
11. Slightly opened the hose-end valves and checked for leakage.
12. Completed preparation for transfer by.
    - Placing the cargo tank emergency discharge system in the (un)loading status if applicable;
    - Opened the cargo tank filling valve, bulkhead ESVs, hose-end valves, and appropriated bulk tank and piping valves.
    - Started the vehicle engine at idle speed and engaged the power take-off (PTO) to start pumping.
    - Verified gas odorization according to company policies and procedures
13. Remained in attendance through out the transfer operation in a position to shutdown the PTO, and activate emergency controls if required.
14. When liquid propane was detected at the fixed maximum liquid level gauge or at the set point for the liquid level gauge, shutdown the PTO and vehicle engine, and closed the ESVs, the hose-end valves, cargo tank valves, bulk tank valves and piping valves
15. Properly vented the gas trapped in the hose connections between the hose-end valves and the cargo tank valves.
16. Replaced the dust covers on the cargo tank inlets and the transfer hoses, and properly stowed the transfer hoses.
17. Performed a walk-around inspection of the vehicle, and prepared it for movement.
18. Secured any bulk plant access gates opened for the loading operation or valve locks and controls security measures.

Note to Skills Evaluator: During the process of loading the cargo tank, ask the person being evaluated to detail what actions are required in the event of:

1. A transfer hose break or major leak.
2. A malfunction of the transfer pump or compressor.
3. An interruption of the loading operation that requires the person being evaluated to leave the transfer area.
4. A fire or other emergency in or near the transfer area.
5. Entrance of unauthorized persons into the transfer area.
6. Gas odorant not detected at the start of the loading opertion.

Task 3.5.7
Unloading a Bobtail Cargo Tank in Metered Delivery Service

The employee is qualified to perform Task 3.5.7a at the following level:

Satisfactory

☐

Unloading a Bobtail Cargo Tank in Metered Delivery Service. 3.5.7a

Performance Guide: The person being evaluated for certification:

1. Properly located the vehicle at the unloading bulkhead 10 feet or more removed from the transfer point, set the parking brake and chock blocks.
2. Inspected the bulk storage tank(s) to verify that the tank(s) was in good condition for continued service and designed for the LP-gas to be transferred and stored, and that the bulk storage tank(s) had adequate capacity to receive the quantity of gas in the cargo tank without over filling.
3. Explained how to avoid overfilling a bulk storage tank interconnected at the bottom to another storage tank having a different diameter and mounted so that the tanks' maximum filled liquid levels were not at the same height.
4. If a test of the remote emergency shutdown device was not performed within 18 hours prior to the unloading operation, tested the remote device for proper operation at a distance of 150 feet from the cargo tank.
5. Inspected those portions of the cargo tank discharge system readily visible during unloading, and the condition of the delivery hose assembly to assure none of the DOT hose rejection criteria were present.
6. Wearing suitable eye and hand PPE, pulled the delivery hose to the unloading bulkhead, installed an ACME adapter if required between the bulkhead connection and the delivery hose-end adapter, inspected the ACME threads and gaskets, installed a leave-behind adapter (if required), and connected the hose-end valve adapter to the bulkhead connection.
7. Connected the bulkhead vapor equalizing hose-end valve and adapter to the vapor equalizing connection on the cargo tank, inspecting the ACME threads and gasket or o-ring before making the connection.
8. Briefly opened the delivery and vapor equalizing hose-end valves to pressurize the connections and checked for leakage.
9. Verified that all bulk plant tank valves, piping valves, and bulkhead valves including the ESVs were in the required open or closed position for unloading the cargo tank.
10. Prepared the liquid meter register or the electronic meter to record the delivery.
11. Set the emergency discharge system for unloading and engaged the PTO to begin pumping.
12. Remained in attendance with the remote emergency shut down control throughout the transfer, checking the storage tank(s) fixed maximum liquid level gauge and liquid gauge frequently, and stopped the pump when:
    - Any abnormal operating condition was noticed; or
    - Liquid (a steady white mist) was observed at the fixed maximum liquid level gauge outage of any storage tank; or
    - The liquid level gauge indicated the maximum permitted filling level was reached for any storage tank; or
    - The cargo tank was fully unloaded of liquid without running the pump dry.
13. Shut down the vehicle engine, closed the hose-end valves, cargo tank valves, and the ESVs and bulkhead valves.
14. Properly vented the liquid propane trapped between the delivery hose-end and transfer adapter—then disconnected the hose, inspecting the full length of the deployed hose during its retrieval, and secured the hose for travel. Likewise, vented the vapor trapped between the vapor hose-end adapter and the cargo tank vapor equalizing connection then disconnected and properly stowed the vapor equalizing hose.
15. Completed all company designated forms or applicable delivery records.
16. Completed a walk-around inspection of the transfer area and the vehicle to assure all appropriate valves were closed, dust caps were in place, and the vehicle's path was clear for leaving the unloading bulkhead. Checked for proper condition of vehicle tires and wheels. Properly retrieved and stowed the chock blocks in preparation to move the CTMV.
17. Verified bulk plant security measures (such as closed and locked gates, valve locks, controls locks, alarm systems) were in place.

Task 3.5.9
Unloading a Transport in Non-Metered Delivery Service Using a Compressor

The employee is qualified to perform Task 3.5.9a at the following level:

Satisfactory	Not Applicable*
☐	☐

*Not applicable means that this person's job description does not require the person to perform this task or that the required equipment was not available.

Unloading a Transport in Non-Metered Delivery Service Using a Compressor. 3.5.9a

Performance Guide: At a bulk plant the person being evaluated for certification

1. Properly located the vehicle at the unloading bulkhead.
2. Secured the vehicle against movement by setting the parking brake and placing chock blocks in front and behind a wheel according to company and bulk plant procedures, and shut down the engine.
3. Wearing proper personal protective equipment, determined the proper setting for the bulk storage tank(s) liquid level gauge for proper filling level based on the liquid temperature and specific gravity of the product.
4. Verified proper condition and locations of the unloading bulkhead ESVs and remote emergency shutdown controls.
5. Inspected the condition of the unloading bulkhead transfer hoses and/or the cargo tank delivery hose assembly if used for the product transfer.
6. After determining that the liquid and vapor cargo tank valves were closed, removed the caps from the cargo tank unloading connections, and inspected the condition of ACME threads and the o-ring or gasket.
7. Inspected the transfer hose connections, made the liquid and vapor connections hand-tight, then appropriately used a spanner wrench to complete the hose connections.
8. Slightly opened the hose-end valves and checked for leakage.
9. Completed preparation for transfer by.
   - Placing the cargo tank emergency discharge system in the unloading status if applicable;
   - Opening the cargo tank liquid discharge valve, bulkhead ESVs, hose-end valves, and appropriate bulk tank and piping valves.
   - Inspecting the compressor verifying the proper crankcase oil level, and that only vapor was present in the liquid trap.
   - Verifying the proper position of the 4-way valve, and piping valves for cargo tank unloading.
   - Operating the compressor switch to start the loading of the cargo tank.
10. Remained in attendance throughout the transfer operation in a position to shutdown the compressor, and activate emergency controls if required, and monitoring bulk tank liquid level gauges through the transfer.
11. When the liquid in the cargo tank was unloaded to the extent possible or when liquid propane was detected at the fixed maximum liquid level gauge or at the set point for the liquid level gauge of any bulk storage tank, shutdown the compressor.

[Go to the next task—reducing vapor pressure in the cargo tank and recovering condensed liquid—then resume this checklist after the completion of cargo tank vapor recovery.]

12. Closed the ESVs, the hose-end valves, cargo tank valves, bulk tank or loading rack valves and piping valves.
13. Properly vented the gas trapped in the hose connections between the hose-end valves and the cargo tank valves.
14. Replaced the dust covers on the cargo tank inlets and the transfer hoses, and properly stowed the transfer hoses and delivery hose assembly.
15. Performed a walk-around inspection of the vehicle, and prepared it for movement.
16. Completed documentation of the unloading operation and provided copies of unloading documents, Bill of Lading, and Shipping Papers and Odorization Report if a separate document, as appropriate to the bulk plant manager or operator, following company procedures.
17. Secured any bulk plant access gates or valve locks and controls security measures opened for the unloading operation.

Task 3.5.10
Reducing Cargo Tank Vapor Pressure Using a Plant Compressor

The employee is qualified to perform Task 3.5.10a at the following level:

Satisfactory	Not Applicable*
☐	☐

*Not applicable means that this person's job description does not require the person to perform this task or that the required equipment was not available.

Reducing Cargo Tank Vapor Pressure Using a Plant Compressor. 3.5.10a

Performance Guide: The person being evaluated for certification:

1. Positioned the compressor 4-way valve for cargo tank vapor recovery.
2. Placed the piping valves in their proper open or closed positions for directing vapor from the discharge side of the compressor via the proper piping circuit to the bulk storage tank(s), and directing vapor from the cargo tank vapor space to the compressor suction side.
3. Verified that the cargo tank liquid discharge transfer hose valves were closed.
4. Re-started the compressor, allowing it to move vapor from the cargo tank until the cargo tank vapor pressure or time limit designated by the transport operating company was reached.
5. At the proper time, turned off the compressor and closed all piping valves, ESVs and cargo tank valves.
6. Continued with other unloading operation steps (See 3.5.11a).

Task 3.5.9b
Unloading a Transport in Non-Metered Delivery Service Using the CTMV Pump

The employee is qualified to perform Task 3.5.9b at the following level:

Satisfactory
☐

Unloading a Transport in Non-Metered Delivery Service Using the CTMV Pump. 3.5.9b

Performance Guide: At a bulk plant, the person being evaluated for certification:

1. Properly located the vehicle at the unloading bulkhead.
2. Secured the vehicle against movement by setting the parking brake and placing chock blocks in front and behind a wheel according to company and loading facility procedures, and shut down the engine. Attached an electrical grounding cable, if required by bulk plant unloading procedures.
3. Depending on the pump drive type:
   - ☐ Connected the jack shaft between the tractor PTO shaft and the pump drive shaft, or
   - ☐ Inspected the hydraulic oil cooler and reservoir, and the hydraulic hoses and connections.
4. Wearing proper personal protective equipment, determined the proper setting for the bulk storage tank(s) liquid level gauge for proper filling level based on the liquid temperature and specific gravity of the product.
5. Inspected the condition of the bulkhead, bulk plant piping, and valves and determined the proper valve positions for unloading the transport.
6. Verified proper condition and locations of the ESVs and remote emergency shutdown controls.
7. Inspected the condition of the unloading bulkhead transfer hoses, if used.
8. After determining that the liquid and vapor cargo tank unloading valves were closed, removed the caps from the cargo tank unloading connections, and inspected the condition of ACME threads and the o-ring or gasket.
9. Inspected the transfer hose connections, made the liquid and vapor connections hand-tight, then appropriately used a spanner wrench to complete the hose connections.
10. Slightly opened the cargo tank manual valves and checked for leakage.

Checklist continues on the next page.

11. Completed preparation for transfer by:
    - Placing the cargo tank emergency discharge system in the unloading status if applicable;
    - Fully opening the cargo tank valves, ESVs, hose-end valves if applicable, and appropriate bulk tank and piping valves.
    - Started the vehicle engine at idle speed and engaged the power take-off (PTO) to start pumping.
    - Verified gas odorization according to company policies and procedures
12. Remained in attendance throughout the transfer operation in a position to shutdown the pump, and activate emergency controls if required.
13. When liquid propane in the cargo tank was completely emptied , or liquid propane was detected at the fixed maximum liquid level gauge or at the set point for the liquid level gauge, shutdown the vehicle engine, PTO and transfer pump—then closed the ESVs, the hose-end valves, cargo tank valves, bulk tank valves and piping valves.
14. Properly vented the gas trapped in the hose connections between the hose-end valves and the cargo tank valves.
15. Replaced the dust covers on the cargo tank inlets and the transfer hoses, and properly stowed the transfer hoses.
16. Completed documentation of the unloading operation and provided copies of unloading documents, Bill of Lading, and Shipping Papers or Odorization Report, as appropriate to the bulk plant manager or operator, following company procedures.
17. Performed a walk-around inspection of the vehicle, and prepared it for movement.
18. If applicable, secured any access gates or valve locks and controls security measures opened for the loading operation.

IV. CETP Performance Evaluation / Employer Record (3.5)

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	Not Applicable	
☐		**Identifying Features of Cargo Tank Loading and Unloading Systems. 3.5.2a**
☐		**Identifying Cargo Tank Placarding, Marking and Testing Requirements. 3.5.3a**
☐		**Identifying Components of Bulk Plant Loading/Unloading Systems & Written Operating Procedures. 3.5.6a**
☐		**Inspecting Cargo Tank Delivery Hose Assemblies & Emergency Discharge Control Systems. 3.5.5a**
☐		**Loading a Cargo Tank Using a Plant Pump. 3.5.7a**
☐	☐	**Loading a Cargo Tank Using a Plant Compressor. 3.5.7b**
☐	☐	**Loading a Cargo Tank Using a CTMV Pump Through an Auxiliary Inlet. 3.5.7c**
☐		**Unloading a Bobtail Cargo Tank in Metered Delivery Service. 3.5.9a**
☐	☐	**Unloading a Transport in Non-Metered Delivery Service Using a Compressor. 3.5.11a**
☐	☐	**Reducing Cargo Tank Vapor Pressure Using a Plant Compressor. 3.5.12a**
☐		**Unloading a Transport in Non-Metered Delivery Service Using the CTMV Pump. 3.5.11b**

After completion of Section IV, "Employer Record," remove pages 15 and 16 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