



IOWA PROPANE GAS ASSOCIATION



2.2 Bobtail Delivery Operations - Refresher Performance-Based Skills Assessment 2018

Section 1 Propane Delivery Operations

- Task 1 Verify Documentation Requirements
- Task 2 Apply Safe Handling Practices for Hazardous Materials
- Task 3 Verify the Presence of Propane Odorant
- Task 4a Identify Interruption of Service and Out of Gas Calls
- Task 4b Identify Interruption of Service and Out of Gas Calls: Leak Checking Distribution Piping Systems
- Task 5 Identify Methods for Handling Accidents, Breakdowns and Emergencies
- Task 6 Identify Vehicle Security Requirements for Parking and Servicing a Propane Vehicle

Section 2 Bobtail Delivery Operations

- Task 1 Perform Monthly and Verify Annual and Five-Year Inspections
- Task 2 Demonstrate Understanding of Safe Driving Practices and Handling Emergencies
- Task 3 Identify ASME Tank Requirements
- Task 4 Examine Customer Containers and Installations Prior to Filling
- Task 5 Inject Methanol into a Container
- Task 6 Evacuate an ASME Tank Using a Portable Compressor or a Bobtail Pump

NOTICE: The Skills Evaluator must be the Candidate's supervisor or another qualified person [one who has completed CETP 2.2 "*Bobtail Delivery Operations*" or is familiar with the subject matter].

IPGA Certification requires that the employee seeking certification cannot act as his/her own evaluator.

Instructions for Use:

The Performance Based Skill Assessment is designed to standardize conditions under which the candidate demonstrates performance of tasks to meet the requirements for training (Qualifications of personnel).

The Skills Assessment should be supplemented with company policies and procedures related to each task being evaluated as needed.

1. The candidate has 12 months from the date of successfully passing the IPGA Refresher exam to successfully complete the tasks within the evaluation.
2. The affidavits and a final checklist are provided on the last two pages of the skills packet.
 - Affidavits must be signed by both the candidate and the skill evaluator.
 - The final checklist must be fully completed within 12 months of passing the exam (Candidates may use this time to practice skills as often as necessary).
 - Make a copy of the completed skills assessment to use for training records and keep it in the employee's file for future audits.
 - Send the affidavit page and final checklist (last two pages) to the IPGA at the address listed on the affidavit within 12 months of passing the exam.
3. All requirements and prerequisites must be met before certificate of training will be issued. Be sure to list an accurate company address for delivery of the certificate of training.

2.2 Qualification Requirements

- Passing exam score on Iowa Refresher Training - 2.2 "*Bobtail Delivery Operations*" exam.
- Completed and signed Iowa Refresher Training - 2.2 "*Bobtail Delivery Operations*" Skills Assessment Affidavit and Final Checklist returned to IPGA within 12 months of passing the exam.

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 Iowa Propane Education and Research Council and the Iowa Propane Gas Association 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.

IPGA REFRESHER TRAINING– Bobtail Delivery Operations Skills Assessment (2018)

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Instructions for Candidate:

Practice the operations as many times as needed to become confident and proficient with the documents or equipment necessary to complete each task. Your evaluator will check and observe your performance, using the steps to complete each hands-on operation and/or company procedures.

The candidate 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 candidate on the proper safety procedures that apply before allowing the candidate to continue.

After completing the skills evaluation, the candidate must fill out the Employee Information section and sign the Affidavit.

Required information includes the candidate's last four digits of the SSN to assist the IPGA in locating the correct records.

Instructions to the Skills Evaluator:

The candidate 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 candidate on the proper safety procedures that apply before allowing the candidate to continue.

- Review the tasks within the Skills Evaluation with the candidate.
- Review all of the instructions, answering any questions and explaining how the skills assessment will be used.
- Demonstrate and/or talk the candidate through each of the steps required to perform each task.
- Allow the candidate time to ask questions and/or study the steps.
- Observe the candidate performing the required steps, providing corrections as needed.
- Allow the candidate to practice until he/she is confident. *Remember:* the candidate has 12 months from the date of passing the exam to complete and return the skills assessment.
- Evaluate the candidate when ready.
- After completing the final checklist, complete the Skills Evaluator information and sign the Affidavit.
- Ensure that the Affidavit and final Checklist are copied and retained as the employee's training record, and send a copy to the IPGA at the address provided on this form.

Each task is divided into one or more operations upon which the candidate's performance is evaluated. All tasks must be completed unless the "Not Applicable" option is both available for the task and applicable to the candidate or the marketer's present situation.

Satisfactory - When all the operations within a task are successfully performed by the candidate according to the criteria provided, the evaluator will check off the box marked "Satisfactory."

* **Not Applicable** - Certain tasks have the "Not Applicable" option available. The Skills Evaluator must ensure the circumstances described under the option are applicable to either the candidate or marketer's present situation.

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Section One: Propane Delivery Operations

Task 1: Verify Documentation Requirements

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) for the skills assessment task evaluation:

1. Verify the following inspection(s) for the delivery vehicle:
 - DOT required annual inspection is current (within the current 12 month period) and the vehicle is properly marked and/or the driver carries appropriate documentation for the vehicle annual inspection.
 - Periodic or scheduled maintenance is current and documented as prescribed by applicable company vehicle maintenance procedures.
2. Verify the following:
 - Vehicle hazardous material placard methods are correct and displayed properly on the vehicle.
 - Product shipping name is correct, properly displayed on the vehicle, and in compliance with DOT requirements.
 - Emergency response information is in compliance with DOT, state, and local requirements and company policies.
 - Hazmat Certificate of Registration is current and available.

Satisfactory

Task 2: Apply Safe Handling Practices for Hazardous Materials

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) for the skills assessment task evaluation:

1. Explain how to identify the appropriate Personal Protection Equipment (PPE) for handling methanol, solvents, and other combustible or flammable liquids.
2. Identify the proper container to use for handling small quantities of a flammable liquid such as methanol.
3. While wearing appropriate PPE and following company policies and procedures:
 - Identify proper indoor and outdoor storage requirements for flammable and/or combustible liquids.
 - Check a drum or other large methanol storage container for proper electrical grounding.
 - Correctly identify the labeling of the health, fire and chemical reactivity hazards of liquids stored in drums or bulk tanks.
4. While wearing appropriate PPE and following company policies and procedures, demonstrate the necessary steps to transfer flammable liquids to include, at a minimum, grounding, bonding and the labeling of containers.
5. Demonstrate how to:
 - Check a flammable liquid container for leakage.
 - Correctly label methanol and other flammable liquid containers.
 - Secure methanol and other flammable liquids as materials of trade for transportation according to DOT requirements.

Satisfactory

Task 3: Verify the Presence of Propane Odorant

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) and use a company-designated form for the skills assessment task evaluation at a bulk plant or company facility:

1. Wear appropriate PPE as required by company safety procedures.
2. Perform and document a "Sniff Test" according to company policies and procedures.
3. Explain the proper response/procedure if it is suspected that propane is **not** properly odorized.

Satisfactory

Not Applicable*

**Not Applicable means that the person's job description does not require the person to perform this task.*

Task 4a: Identify Interruption of Service and Out of Gas Calls

Evaluator: The steps below can be simulated or observed while on call at an actual residential location.

Preparation Guide: At a residential location (or in a simulated setting), wear appropriate Personal Protective Equipment (PPE) for the skills assessment task evaluation:

1. Examine the installation of propane storage containers and correctly determine if the container(s) is pressurized and contains liquid propane as described in company policies and procedures.
2. Explain and demonstrate how to implement company policies and procedures for handling an out of gas situation if the customer or customer representative is present, and the gas appliances are accessible.
3. Explain and demonstrate how to implement company policies and procedures for handling an out of gas situation if the customer or customer representative is not present, and the gas appliances are not accessible.

Satisfactory

Task 4b: Identify Interruption of Service and Out of Gas Calls: Leak Checks in Distribution Piping Systems

Evaluator: The steps below can be simulated or observed while on call at an actual residential location.

Preparation Guide: At a residential location (or in a simulated setting), wear appropriate Personal Protective Equipment (PPE) for the skills assessment task evaluation:

1. Verify that the service valve(s) of the propane storage container(s) is shutoff.
2. Connect a company approved pressure measuring device at the proper point in the piping system.
3. Verify that all piping system outlets are either capped or plugged, or connected to an appliance shutoff and ultimately to a gas appliance.
4. Verify that all gas appliances equipped with 100% safety controls are set to the "on" control position with the standing pilots extinguished, and their shutoffs in the open position.
5. Verify that the shutoffs for all gas appliances not equipped with 100% safety controls are in the closed position.
6. Briefly open, and then close the propane container service valve to pressurize the system.
7. In a ventilated area, away from ignition sources, vent sufficient vapor to reduce the measured pressure of the:
(Evaluator to check the box for the method used)
 - Test Block Gauge, if used, by 10 psig lower than the container pressure.
 - High pressure gauge, if used, at least 2 psig less than the starting pressure;
 - Water column manometer or low pressure test gauge, if used, to 9 inches water column plus or minus ½" water column.
8. Record the starting time and test pressure.
9. Observe the measured pressure for a minimum of 3 minutes and then record the ending time and test pressure.
10. If no measured pressure increase or decrease is seen, remove the measuring device, seal the test connection, pressurize the system and check for leaks at the test connection, using an approved leak detection device or solution.
11. If a measured pressure increase or decrease is seen:
 - Repeat the leak check procedure after checking the container service valve for proper closed position if the measured pressure increases; or
 - Locate one or more leaks and seal them, then repeat the leak check procedure until the measured pressure no longer decreases.
12. Make the system safe until repairs can be made, following company procedures for shutting off the gas supply, tagging the system, documenting the customer notice and information, and any other required steps.

Satisfactory

Not Applicable*

*Not Applicable means that the person's job description does not require him/her to perform this task.

Task 5: Identify Methods for Handling Accidents and Emergencies

Preparation Guide: Wear appropriate Personal Protective Equipment (PPE) for the skills assessment task evaluation:

1. Demonstrate or explain the necessary steps for handling **a delivery accident with no propane leak**, following DOT requirements and company policies and procedures:

Initial Precautionary steps with the vehicle, if safe to do so:

- Move vehicle off the road if safe to do so, set the parking brake, shut down the engine, and turn on the emergency flashers.
- Exit the vehicle and chock the wheels.
- Identify and prevent potential ignition sources.
- Set out warning devices, such as triangles, and keep unauthorized people away from the vehicle.

Steps to ensure Safe Conditions, if safe to do so:

- Check for fuel spills to see if gasoline or other flammable liquid presents a hazard.
- Check other vehicles involved for hazardous materials placards to determine if other hazardous materials are involved.
- Move a safe distance away from the vehicle(s) and direct other people to move away from the vehicle(s).
- Determine if anyone is injured and assist if qualified to do so; however, do not move an injured person(s) except as necessary to get them out of danger.
- Call the police and/or ambulance, remain at the scene, cooperate with emergency response personnel, and provide required documents.

2. Demonstrate or explain the necessary steps for handling **a delivery accident with a propane leak**, following DOT requirements and company policies and procedures:

- Never pass through a vapor cloud produced by an uncontrolled release of propane.
- Always move up-wind of a leak or vapor cloud, and only activate emergency shutdown devices away from the leak.
- Do not enter the cab of the vehicle to shut down the engine if you suspect gas is in the area.
- Avoid creating additional ignition sources such as opening the vehicle cab door, or using a cell phone.

3. Correctly identify or demonstrate the following emergency equipment and/or requirements for the propane delivery vehicle:

- Fire extinguisher requirements
- Non-propane related, fire related, and fire control procedures
- Use of hazard warning signals and devices
- Notification requirements in the event of accident involving release of propane
- Company policies and procedures for reporting and/or documenting an accident or incident

Satisfactory

Task 6: Identify Vehicle Security Requirements for Parking and Servicing a Propane Vehicle

Preparation Guide: Wear appropriate Personal Protective Equipment (PPE) for the skills assessment task evaluation:

1. Correctly explain the definition of properly attending the vehicle.
2. Correctly identify the requirements for parking a propane vehicle **indoors at a non-public building**.
3. Correctly identify the requirements for parking a propane vehicle **unattended outdoors**.
4. Correctly identify the necessary requirements prior to:
 - Servicing the delivery cargo tank or piping system
 - Servicing the delivery vehicle at a public/non-public garage, while either in attendance or not in attendance
5. Explain company policies and procedures related to transportation security.

Satisfactory

Section Two: Bobtail Delivery Operations

Task 1: Perform Monthly and Verify Annual and Five-Year Inspections

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) for the skills assessment task evaluation:

1. Explain the DOT requirements for each of the following inspections:
 - Monthly bobtail inspection
 - Annual external visual inspection (V) and leakage test (K)
 - Five-Year cargo tank hydrostatic inspection
2. Perform a monthly inspection of the delivery hose and assembly, documenting the results.
3. Perform a monthly inspection of the emergency discharge system, documenting the results.
4. Perform a meter creep test, documenting the results.
5. Verify the Annual and Five-Year Cargo Tank inspections are current and appropriately marked on the cargo tank.

Satisfactory

Task 2: Demonstrate Understanding of Safe Driving Practices and Handling Emergencies

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) and follow company policies and procedures for the skills assessment task evaluation:

1. Demonstrate an understanding of safe driving practices for a bobtail delivery vehicle according to company policies and procedures.
2. Verify the location of the safety controls/features on the different delivery vehicles available at the plant.
3. Explain company policies and procedures for handling and documenting emergencies.
4. Explain company policies and procedures for avoiding a vehicle rollover based on the terrain in your driving area.

Satisfactory

Task 3: Identify ASME Tank Requirements

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) for the skills assessment task evaluation:

1. Correctly identify the sizes and types of ASME tanks.
2. Correctly identify the following:
 - Data plate and required design information
 - Valves and gauges on Aboveground ASME tanks
 - Parts, valves and gauges on Underground ASME tanks
 - Parts, valves and gauges on Vehicle-Mounted ASME tanks
3. Inspect and verify the following for the propane container:
 - Containers have a sound foundation, are properly supported and level
 - Container locations adhere to required minimum separation distance
 - Container information is available and accurate
4. Inspect the overall fitness of the propane container, to include damage from:
 - Fire
 - Deep dents or cuts
 - General distortion
 - Cylinder protective collar defects
 - Mounting bracket defects on ASME vehicle-mounted tanks
 - Leaks
 - Gouges, bulges, or digs
 - Extensive corrosion
 - Leg/Foot ring defects
5. Visually inspect the valves prior to filling, to include the following:
 - All protective/rain caps are in place
 - No blocking the valves
 - Gasket is in place on the filler valve
 - Handwheel is functioning on the service valve
 - No evidence of leaking
 - No signs of corrosion
 - Weep hole is open on the pressure relief valve
 - Weep holes are cleared of dirt, ice, paint or other foreign particles
6. Correctly inspect the pressure regulators on a propane container according to company policies and procedures.
7. Correctly inspect the transfer site to ensure proper conditions are met for the safe transfer of propane according to company policies and procedures.

Satisfactory

Task 4: Examine Customer Containers and Installations Prior to Filling

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) for the skills assessment task evaluation:

1. Inspect the foundation of the aboveground container to ensure the following:
 - Container is properly supported and level
 - Masonry foundation is not significantly cracked or compromised
 - Foundation is firm and made of non-combustible material that prevents contact of the container body with soil or standing water
 - No erosion is present to undermine the tank foundation
2. Explain and verify the NFPA 58 minimum distance requirements for aboveground and underground containers.
3. Verify the container information for ASME tanks and DOT Stationary Cylinders.
4. Inspect the overall fitness of the propane container, to include damage from:
 - Fire
 - Extensive corrosion
 - Leg/foot ring defects
 - Deep dents or cuts
 - Leaks
 - Cylinder protective collar defects
 - Gouges, bulges or digs
 - General Distortion
5. Inspect the condition of the filler, pressure relief, and service valves to include:
 - Protective/rain caps are present and in place
 - No debris blocking the valve
 - Gasket is in place on the filler valve
 - Weep hole is open on the pressure relief valve, and cleared of dirt, ice, paint, or other foreign particles
 - No evidence of leaking
 - No signs of corrosion
 - Handwheel if functioning on the service wheel

Satisfactory

Task 5: Inject Methanol into a Container

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) and follow company policies and procedures for the skills assessment task evaluation:

1. Following company policies and procedures, demonstrate and document the process of injecting methanol into a propane container under the following conditions:
 - Negative pressure container
 - Positive pressure container

Satisfactory

Task 6: Evacuate an ASME Tank Using a Portable Compressor or a Bobtail Pump

Evaluator: Please indicate which method was used to evacuate an ASME tank for the steps indicated throughout the task:

Portable Compressor **OR** **Bobtail Pump**

Preparation Guide: Wear appropriate Personal Protection Equipment (PPE) and follow company policies and procedures for the skills assessment task evaluation:

1. Position the bobtail on an appropriate surface, and set the parking brake and wheel stops.
2. **Portable Compressor:** Shut down the vehicle engine and correctly locate the portable compressor between the bobtail and the ASME tank.
 - Bobtail Pump:** Shut down the vehicle engine.
3. Note the percentage of liquid in the ASME tank and verify sufficient cargo tank capacity to receive the recovered liquid without overfilling.
4. Following manufacturer's instructions, loosen the sealing cap on the ASME tank's actuated liquid withdrawal excess-flow valve - *without removing it*. Allow sufficient time to ensure that the valve checks and pressurized liquid and vapor vents through the valve's vent before removing the cap, or determining that the cap should not be removed.
5. Install appropriate transfer valve if required.
6. Check transfer valves and hose for leaks.
7. Make proper connections for transfer, based on whether portable compressor or cargo tank pump is used.
8. **Portable Compressor:** Start the compressor, alert for any abnormal operating condition.
 - Bobtail Pump:** Start the vehicle engine and engage the PTO to operate the pump at low idle speed, alert for any abnormal operating condition.
9. **Portable Compressor:** Monitor the transfer of liquid, then shut down the compressor and close all valves.
 - Bobtail Pump:** Monitor the transfer of liquid, then shut down the pump, PTO and engine, and close all valves.
10. Disconnect the hoses after venting trapped gas by a safe controlled release. Cap the hose ends and secure them for travel.
11. Fully open the transfer valve to check the ASME tank's actuated liquid withdrawal excess-flow valve, according to manufacturer instructions.
12. Properly prepare liquid withdrawal valve and remove transfer valve according to company procedures.

Satisfactory

Not Applicable*

**Not Applicable means that the person's job description does not require him/her to perform this task*

IPGA Performance Evaluation / Employee Record (2.2)

Completing your refresher IPGA Certification:

Step 1: Successfully pass the exam.

Step 2: Complete and return the IPGA Performance Evaluation / Employee Record to the Iowa Propane Gas Association within 12 months of passing the exam.

Step 3: Complete any necessary prerequisites within 12 months of passing the exam.

The information requested below will be used to **mail your certificate** and to assist in locating your records in the IPGA training database. Please make sure to complete all requested information; we thank you in advance for your assistance.

Candidate Information: (print or type) Test Group Number (if known): _____

Name: _____ Last four digits of SSN (only): _____

Employer: _____

Address: _____ Daytime Phone#: _____

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 IPGA Certificate 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 Iowa Propane Education and Research Council and the Iowa Propane Gas Association assume no liability for my actions, or for my application of the skills assessment performance guides used in this evaluation checklist.

Candidate Signature _____ **Date** _____

Skills Evaluator Information: (print or type)

Name: _____

Organization/Employer: _____

Affidavit

I affirm that I am the person who has administered this checklist, and that I have conducted this Performance-Based Skills Assessment with integrity. I also affirm that the above named Candidate 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** _____

Final Checklist for: IOWA REFRESHER TRAINING - 2.2 *Bobtail Delivery Operations*

Name: _____ Last four digits of SSN (only): _____

The candidate has been evaluated on the following tasks at the following level:
(N/A option is available only as listed in the Not Applicable column/available box(s) below)

Satisfactory	Not Applicable	Section One: Propane Delivery Operations
<input type="checkbox"/>		Verify Documentation Requirements
<input type="checkbox"/>		Apply Safe Handling Practices for Hazardous Materials
<input type="checkbox"/>	<input type="checkbox"/>	Verify the Presence of Propane Odorant
<input type="checkbox"/>		Identify Interruption of Service and Out of Gas Calls
<input type="checkbox"/>	<input type="checkbox"/>	Identify Interruption of Service and Out of Gas Calls: Leak Checking Distribution Piping Systems
<input type="checkbox"/>		Identify Methods for Handling Accidents, Breakdowns and Emergencies
<input type="checkbox"/>		Identify Vehicle Security Requirements for Parking and Servicing a Propane Vehicle
Section Two: Bobtail Delivery Operations		
<input type="checkbox"/>		Perform Monthly and Verify Annual and Five-Year Inspections
<input type="checkbox"/>		Demonstrate Understanding of Safe Driving Practices and Handling Emergencies
<input type="checkbox"/>		Identify ASME Tank Requirements
<input type="checkbox"/>		Examine Customer Containers and Installations Prior to Filling
<input type="checkbox"/>		Inject Methanol into a Container
<input type="checkbox"/>	<input type="checkbox"/>	Evacuate an ASME Tank Using a Portable Compressor <u>or</u> a Bobtail Pump

Make a copy for your training records and then send the original (or scanned copy) to:

Iowa Propane Gas Association

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EMAIL: mwicker@iapropane.org