THE "HOW TO" BOOK ON VAPOR RECOVERY

Everything you need to know to keep your station in compliance with the vapor recovery law.
You are an important link in this chain.

Every time gasoline is transferred from one container to another, toxic vapors can escape into the air, causing air pollution and health hazards.

The fewer vapors escaping, the better it is for your health.

This book will show you how to prevent toxic gasoline vapors from getting into the air.
Your vapor recovery system does all this.

- REDUCES your risk of getting cancer.
- REDUCES lung-damaging air pollution.
- REDUCES gasoline odors.
- SAVES over a gallon of gas for every 1,000 gallons pumped.

A properly maintained Stage II system reduces air pollution from refueling by about 90%!
Check it every day.

This book will show you what you need to look for when you inspect your vapor recovery equipment.

Inspect it every day when you unlock the pumps and keep it in good working order.

If you find a problem, remove the equipment from service until you can fix or replace it.

Do your inspections daily and keep the completed forms in a file.

Make copies of the inspection checklist. It will make it easy to do your daily inspections. The DEQ inspector will ask to see these.
**Inspection Checklist**

- Make photocopies of this page.
- Use this form to make your daily Stage II equipment inspection.
- Keep these forms in a file for two years. The DEQ inspector will ask to see them.
- For more information, read your vapor recovery permit.
- Questions? Call DEQ. 503-229-5554 or 503-229-6035

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**INSPECTION CHECKLIST**

Station Name: ____________________________

Address: ____________________________________________

City/State/Zip: ____________________________

Use these codes on the form. Put month, day and year under date (i.e. Feb. 13, 1996).

Use these codes for CONDITION OF BELLOWS, NOSE SEAL & HOSE:

- **ND** = No defects found
- **H** = Small hole or tear (bellows still operable)
- **T** = Torn (Bellows inoperable)
- **WS** = Weak spring
- **HDO** = Hose damage (operable)
- **HDI** = Hose damage (inoperable)
- **LSO** = Leaking seal (operable)
- **LSI** = Leaking seal (inoperable)

Use these codes for ACTIONS TAKEN: **NA** = No action needed; **TO** = Taken out of service; **DR** = Defect repaired

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<tr>
<th>Date</th>
<th>Dispenser Number</th>
<th>Bellows</th>
<th>Nose Seal</th>
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Check those seals!

Make sure the caps are on the underground tanks and that the seals are in good shape.

Check to see that the delivery driver hooks up both the gasoline line and the vapor line.
Kick the “top off” habit.

Topping off the tank is the biggest cause of blocked vapor lines.

When a tank overfills, gas goes back down the vapor hose, blocking the line.

If a nozzle continually shuts off when you’re trying to put gas into a tank you know isn’t full, one of two things is happening.

1. Liquid gas is blocking the vapor line

or

2. The nozzle has a part that is broken or improperly installed.
What to look for...

**Hoses.**
Replace flattened or kinked hoses because these problems close off the vapor return line, forcing the toxic fumes into the air.

Hoses that are kinked, flattened or full of gasoline cause the nozzle to constantly shut off while fueling.

**Bellows.**
It's smart to replace any damaged bellows, no matter how small the tear.

**Face Seal.**
Your nozzle has either a flexible rubber cone or a rubber faceplate that comes into contact with the vehicle fill pipe.

At least 3/4 of the faceplate must make a seal with the vehicle fill pipe.

At least 3/4 of the flexible cone is required for use.

**Clamp.**
On some nozzles with a faceplate, the clamp on the upper part of the bellows holds the bellows tightly to a "check valve" inside.

Make sure the hose clamp is correctly placed according to the manufacturer's instructions.

**Checklist.**
Use your thumbs to check for leaks. Replace bellows that have tears longer than 1/8."
If a nozzle doesn’t shut off, don’t use it.

Sometimes a micro-switch inside the nozzle can fail and the nozzle won’t automatically shut off.

If you’re working on other cars, a lot of gas could spill before you notice the problem.

Take these malfunctioning nozzles out of service immediately and have them repaired.
Troubleshooting

If the nozzle keeps shutting off:
1. Drain gasoline from vapor hose into vehicle fill pipe or approved container by compressing bellows and raising hose above nozzle.
DO NOT squeeze lever.
Or 2. Slow down fuel delivery. Put on low or middle notch.

If the hose is attached to a high-hang dispenser, clear the line by raising and extending the hose above the nozzle and letting the gas drain into a vehicle fill pipe.
DO NOT squeeze the lever.
If the nozzle continues to shut off, call the company that installed your equipment.

If the hose is inserted at the bottom of a dispenser, clear the vapor line by extending the hose and raising the nozzle above your head.

DO NOT TOP OFF!
Topping off can lead to spills, splashes and blocking of the vapor hose.
Your vapor recovery components must be certified.

Make sure your replacement equipment is certified.

If you don't know if an item is certified for use with your system, call your supplier.

If you still aren't sure, call DEQ at
503-229-5554 or 503-229-6035

The use of uncertified components could result in a fine.
Indirect Source and Vapor Collection Permit
Stage I/Stage II and Oxygenated Fuel

Department of Environmental Quality Northwest Region
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201

Issued in Accordance with the Provisions of ORS 468 and 468 A.

ISSUED TO:
<OWNER_NAME>
<SITE_NAME>
<ADDRESS>
<CITY> <STATE> <SITE_ZIP>

INFORMATION RELIED UPON:
Indirect Source and Vapor Collection Permit Application received on <FES_PAID_DATE>.

Permit Number: <COUNTY>-<SITE_ID>
Expiration Date: June 30, 1997

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Richard P. Reiter, Manager
Northwest Region
Date

OPERATING COMPLIANCE SCHEDULE

For gasoline dispensing sites which are regulated sources due to their potential to emit Volatile Organic Compounds (VOC's) which contribute to the formation of peroxychemical oxidants, the following schedule applies.

Stage I Vapor Recovery (for facilities with a stage I system)

Gasoline storage tanks shall be equipped with submerged fill lines. The submerged fill line must remain submerged when the liquid level is 12 inches from the bottom.

The owner/operator of the facility shall not permit the loading of gasoline into the transport tank and operate the vapor recovery system unless the vapor balance fitting is closed and the transport tank and operating system is to prevent releases of gasoline.

The vapor recovery system is to be maintained to be vapor tight and to the following order.

Stage II Vapor Recovery (for facilities with a stage II system)

The owner/operator of the facility subject to stage II vapor recovery requirements shall modify any worn or ineffective vapor control system to maintain tight integrity and efficiency

This permit must be kept at the station.
Read it, especially the part on Stage II Vapor Recovery.
We’ll see you once a year.

- Current permit
- System on
- Good nozzles and hoses
- Certified equipment

The inspector will check to see if your vapor recovery system is in good working order and to make sure all equipment is certified and free of defects. If it isn’t, you could be fined.
Make your daily inspection.

There's a lot at stake here.

- The quality of our air.
- Your health.
- Some big fines for noncompliance.

Inspect your vapor recovery system every day. It doesn't take long, and it makes everyone's life a lot easier.