

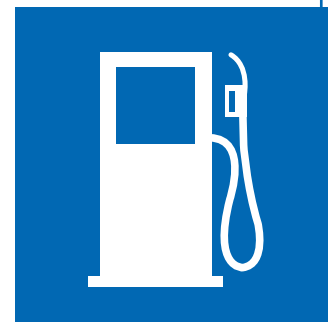


Air Quality Requirements for Gasoline Dispensing

A Guide to Reducing Air Pollution &
Saving Money in Spokane County

What's Inside

- Requirements Prior to Construction or Modification of Gas Stations
- Stage I and II Vapor Recovery
- Requirements That Apply to Daily Operations
- What Inspectors Look for During an Inspection
- Stage I & II Vapor Recovery Self-inspection Checklist



The information in this guide covers the basic requirements you need to know and will help you prepare for periodic air pollution control inspections.

Example self-inspection checklists are provided at the end of this booklet, but you may want to come up with a specific checklist for your facility.

*Identify any potential problems and take action.
Replace or repair defective components immediately.
Do your part to help yourself, your customers and the environment.*



working with you for clean air

Why Did Spokane Clean Air Produce This Booklet?

This guide was developed by Spokane Regional Clean Air Agency (Spokane Clean Air) for companies dispensing gasoline. Its purpose is to inform owners, operators and employees of the various air pollution control requirements.



The major air pollution concern associated with gasoline dispensing and handling facilities is the gasoline vapors, comprised of Volatile Organic Compounds (VOCs), that are released while refilling underground storage tanks and during vehicle refueling. In the presence of sunlight, these VOCs react with oxides of nitrogen to form ground-level ozone, a pollutant that can cause lung damage and breathing difficulty, impact wildlife and reduce crop yields. In addition, gasoline contains numerous toxic compounds, including benzene, a probable cancer-causing agent. Capturing gasoline vapors decreases fire hazards, unpleasant odors, and health risks.

What Is Required Prior to Construction or Modification of Gas Stations?

If you are planning to construct a new gas station or modify an existing one, you must first obtain an approved Notice of Construction per Spokane Clean Air Regulation I, Article V.

Modifications include, but are not limited to, the following:

- Installation of new tanks with total nominal gasoline storage capacity greater than 10,000 gallons
- Replacement of existing gasoline storage tanks
- An increase in the number of fueling stations
- An increase in the throughput as a result of physical change
- Changes from coaxial to dual point Stage I equipment and vice versa

Call Spokane Clean Air at 477-4727 to request a Notice of Construction application and fact sheet, or download at www.spokanecleanair.org/business_information.asp.

What Is Stage I Vapor Recovery?

The refilling of underground storage tanks (USTs) at gasoline dispensing facilities is a major source of VOC emissions. These emissions can be reduced by approximately 95% with the use of Stage I vapor recovery. This system employs a hose that returns gasoline vapors, displaced from the underground tank, to the delivery truck's cargo compartments. There are two types of Stage I configurations: dual point and coaxial.

Dual Point

Dual point systems have two ports. One port is used to deliver gasoline from the truck to the tank and the other is used to return vapors to the truck. (Figure 1)

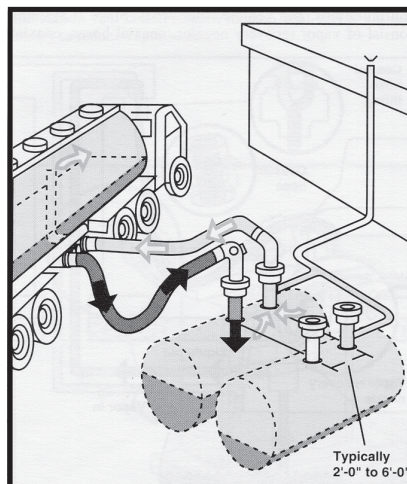


Figure 1, Dual Point

Coaxial

Coaxial systems utilize one port for both liquid gasoline and vapor transport. (Figure 2)

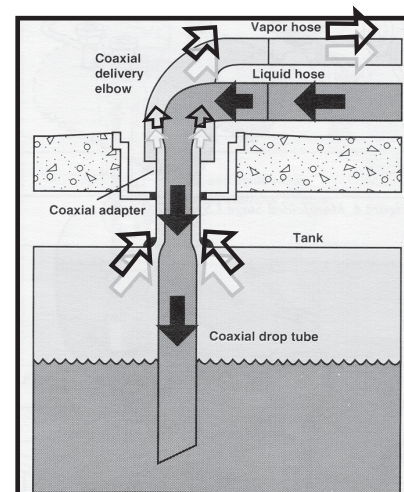


Figure 2, Coaxial

Does Stage I Vapor Recovery Apply to Me?

Stage I requirements apply to the following situations:

- 1) Gasoline dispensing facilities with an annual gasoline throughput greater than 360,000 gallons
- 2) All new or modified gasoline dispensing facilities with a total gasoline storage capacity greater than 10,000 gallons
- 3) The replacement of existing gasoline storage tanks

What Are the Stage I Vapor Recovery Requirements?

1. Gasoline storage tanks must be equipped with submerged or bottom fill lines. The high cut of the fill tube must reach within 6" of the bottom of the UST and fittings to balance gasoline vapors during fuel transfer operations. (Figure 3)

2. When gasoline is unloaded from transport tanks into storage tanks, owners/operators must ensure that all vapor recovery fittings are attached and operating properly. (Figure 4)

3. Only California Air Resources Board (CARB) approved Enhanced Vapor Recovery (EVR) systems or other Spokane Clean Air approved vapor recovery systems may be installed on the tank(s).

CARB certifies vapor recovery systems by issuing Executive Orders. CARB approved Executive Orders can be viewed at www.arb.ca.gov/vapor/eo.htm.

4. All Stage I equipment installation must be performed in accordance with the CARB approved installation, operation and maintenance manual for the specific CARB approved Stage I vapor recovery equipment.

5. Spokane Clean Air must be contacted to conduct an inspection immediately following the installation of the Stage I equipment, and prior to filling the tank for the first time.

Note: Every time gasoline is delivered, it is the responsibility of the gas station owners/operators to ensure that the delivery driver properly connects the vapor recovery lines. Allowing gasoline to be delivered, without the use of proper attachment to the vapor recovery lines, is subject to formal enforcement action against the owners/operators.

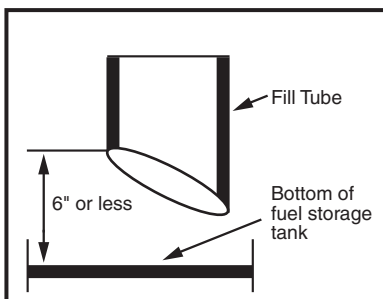


Figure 3, Fill Tube

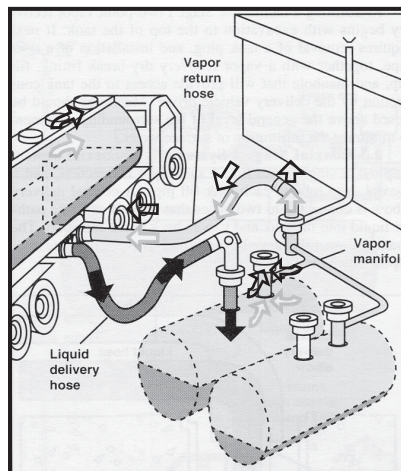


Figure 4, Vapor Recovery Fittings

What Are the Testing Requirements for Stage I EVR Systems?

Spokane Clean Air requires periodic testing of Stage I EVR systems. CARB vapor recovery test methods are at www.arb.ca.gov/testmeth/vol2/vol2.htm. The following three tests are required upon start-up and every three years thereafter, to determine compliance with CARB certification requirements:

1. Static Torque of Rotatable Phase I Adaptors test — quantifies the amount of static torque required to start the movement of a rotatable Phase I adaptor and to ensure 360-degree rotation without loosening the adaptor
2. Leak Rate of Drop Tube Overfill Prevention Devices and Spill Container Drain Valves test — quantifies the leak rate of overfill prevention devices or drop tube/drain valve assembly, and ensures the system is vapor tight with minimal leaks
3. Static Pressure test (CARB T.P.201.3) — verifies the system meets vapor tightness/leak standards

What Is Stage II Vapor Recovery?

Vehicle refueling at gas stations is an even larger source of VOCs than refilling underground storage tanks. These emissions come from vapors displaced from the automobile tank when gasoline is added. When used and properly maintained, Stage II vapor recovery systems can capture approximately 90% of these emissions. The Stage II system conveys the vapors displaced from the vehicle fuel tank back to the underground storage tank through the use of special hoses and nozzles. (Figure 5)

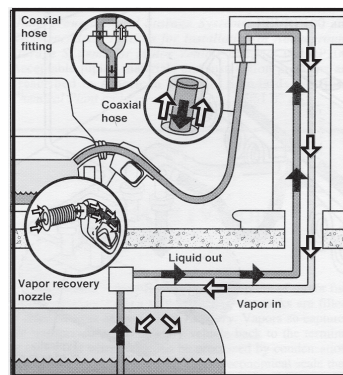


Figure 5, Stage II

The two common Stage II vapor recovery systems are vapor balance and vacuum-assist systems. The vapor balance system operates on the principle of positive displacement of vapors during vehicle refueling. A vacuum is created in the underground storage tank when fuel is removed and pressure is created in the vehicle fuel tank by the incoming gasoline.

The vapor from the vehicle fuel tank is forced out by the pressure of the loading fuel and drawn into the underground storage tank. A coaxial hose (hose within a hose) allows flow of gasoline to the vehicle and recovery of vapors at the same time. The system requires a tight seal at the nozzle/fillpipe interface, which is accomplished by a “boot and faceplate” around the nozzle spout. (Figure 6)

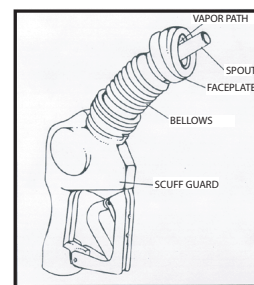


Figure 6, Vapor Balance Nozzle

Vacuum-assist systems do not require a "boot" on the nozzles, although some may have a "mini-boot." Instead, the vapors are extracted from the vehicle tank by means of a vapor pump in the gasoline dispenser. The vapors from the vehicle's fuel tank are pulled through a coaxial hose and returned to the storage tank. The vapor pump is driven by a variable speed or constant speed motor, which is connected to the gasoline pump. (Figure 7 & 7a)

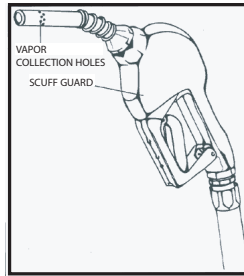


Figure 7, Vacuum-assist

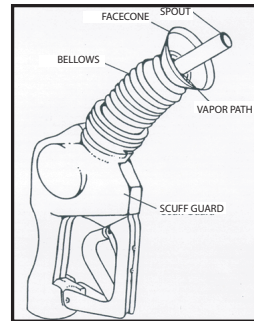


Figure 7a, Vacuum-assist w/mini-boot

Does Stage II Vapor Recovery Apply to Me?

In Spokane County, new and modified gasoline dispensing facilities are required to have Stage II vapor recovery systems if the criteria in the table below are met. Stage II requirements are related to the closest residence in order to minimize long-term exposure to toxic air pollutants.

If Gasoline Throughput Is: (millions of gallons)		Distance to Nearest Residence Property Lines	
< 1.5	and	≤ 20 m	(65 ft)
1.5 - 2.0	and	≤ 25 m	(82 ft)
2.1 - 4.0	and	≤ 38 m	(124 ft)
4.1 - 6.0	and	≤ 49 m	(160 ft)
6.1 - 8.0	and	≤ 58 m	(190 ft)
8.1 - 10.0	and	≤ 66 m	(216 ft)

* If under these distance limits, Stage II vapor recovery is required.

The U.S. Environmental Protection Agency recently adopted new, tougher standards for ground-level ozone. Although the Spokane area has not exceeded the health-based standards for ozone, we've come very close. Even if the Stage II requirements do not apply to a facility, Spokane Clean Air strongly recommends that Stage II plumbing be installed during construction or reconstruction of all facilities in Spokane County, in preparation for possible future requirements. Stage II plumbing, if installed but not used, must be stubbed off and capped in the containment sump dispenser located under the pump island.

What Are the Stage II Vapor Recovery Requirements?

1. All applicable gasoline dispensing facilities must be equipped with a California Air Resources Board (CARB) approved Stage II vapor recovery system. (*Figure 9, page 9*) CARB approved Stage II vapor recovery systems are issued as Executive Orders. CARB Executive Orders for Stage II systems are at www.arb.ca.gov/vapor/eo.htm.
2. Spokane Clean Air requires that all new Stage II systems be compatible with Onboard Refueling Vapor Recovery (ORVR) systems to ensure excess emissions are not generated during refueling.
3. Owners/operators must ensure that the transfer of gasoline from stationary tanks into motor vehicle fuel tanks is conducted with a CARB approved Stage II vapor recovery system.
4. All Stage II plumbing installation must be performed in accordance with the latest revision of The Petroleum Equipment Institute's "Recommended Practices for Installation & Testing of Vapor Recovery Systems at Vehicle Fueling Sites," Document No. PEI/RP300.
5. All Stage II vapor recovery lines must have a uniform slope of at least $\frac{1}{8}$ " per foot back to the tank to prevent traps.
6. Stage II vapor recovery equipment must be installed in accordance with the system's certification requirements and maintained free of leaks, vapor tight and in good working order.
7. If Stage II equipment is determined to be defective, the owner/operator must repair or replace the defective equipment.
8. Owners/operators must post operating instructions for the Stage II system in the gasoline dispensing area.

What Are the Testing Requirements for Stage II Systems?

Spokane Clean Air requires periodic testing of the Stage II vapor recovery equipment. CARB vapor recovery test methods are given at www.arb.ca.gov/testmeth/vol2/vol2.htm. The following three tests are typically required upon start-up, with #2 and #3 required annually thereafter.

1. The Dynamic Pressure test (a.k.a. “back pressure test” or “blockage test”) — ensures that there is not excessive back pressure, generally due to low spots in the Stage II underground piping. This test is conducted wet and dry (the wet portion is what is typically called the “blockage test”). The measured back pressures are compared to allowable values for each Stage II system. Higher back pressures are allowed for vacuum-assist systems than for vapor balance systems because the vacuum is capable of overcoming slight low spots in the piping.
2. The Static Pressure Integrity test (a.k.a. “pressure decay test” or “static decay test”) — quantifies the vapor tightness of the vapor recovery system to ensure there are no leaks. The entire vapor recovery system is pressurized with nitrogen, and the system pressure is allowed to decay. After five minutes, the pressure is compared to the allowable value.
3. The Air-to-Liquid Ratio test — only required for facilities with vacuum-assist Stage II systems. This test quantifies the air-to-liquid volume ratio to make sure the correct amount of vacuum is being pulled at each nozzle. Each CARB Executive Order specifies the acceptable air-to-liquid ratio values.

New Gasoline Dispensing Facilities and CARB Certifications

On April 1, 2001, Enhanced Vapor Recovery (EVR) regulations became effective in California. The EVR regulations were implemented to address equipment reliability issues, and to seek additional emission reductions to meet federal and California air quality requirements.

Consistent with other clean air agencies in Washington, Spokane Clean Air considers EVR Stage I systems to be Best Available Control Technology (BACT) for control of gasoline vapors from refilling of gasoline storage tanks. This means that new installations (i.e. new gasoline dispensing facilities and new or replaced gasoline storage tanks) in Spokane County must comply with the current CARB certification requirements for Stage I vapor recovery systems.

At the time of printing, March 2009, there are five CARB-certified EVR Stage I Vapor Recovery Systems:

- Phil-Tite System (CARB Executive Order VR-101)
- OPW System (CARB Executive Order VR-102)
- EBW System (CARB Executive Order VR-103)
- CNI System (CARB Executive Order VR-104)
- EMCO Wheaton System (CARB Executive Order VR-105)

Current CARB Executive Orders can be viewed at www.arb.ca.gov/vapor/eo.htm. Spokane Clean Air is requiring all new Stage I vapor recovery systems installed in Spokane County to be CARB-certified EVR systems. The new system must be installed, operated and maintained according to the CARB Executive Order under which it was certified.

At this time there are two CARB-certified EVR Stage II vapor recovery systems available. Spokane Clean Air is not currently requiring installation of EVR Stage II systems on new installations; however, as more systems become available, this may be required. Therefore, contact Spokane Clean Air for the most current requirements, 477-4727.

More information on EVR requirements and implementation guidance is available at www.arb.ca.gov/vapor/vapor.htm.

How Effective Are Vapor Recovery Systems in Reducing Emissions?

Below is a comparison of emission reduction calculations using three scenarios: 1) No controls, 2) Stage I vapor recovery and 3) Stage I and II vapor recovery. The calculations are based on an annual throughput of one million gallons, and include emissions from underground storage tank filling (controlled with Stage I) and vehicle refueling operations (controlled with Stage II).

Type of Control	Emissions from Tank Filling (lb/yr)	Emissions from Vehicle Refueling (lb/yr)	Total Emissions (lb/yr)	Total Emissions Reduction (lb/yr)
1) No Controls	12,500	11,700	24,200	0%
2) Stage I Vapor Recovery	1,300	11,700	13,000	46%
3) Stage I and Stage II Vapor Recovery	1,300	1,800	3,100	87%

Facilities with Stage I vapor recovery reduce total VOC emissions by 46%. (Figure 8)

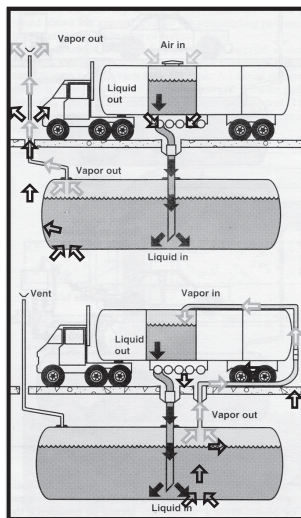


Figure 8, Stage I

Facilities with both Stage I and Stage II vapor recovery reduce total VOC emissions by 87%. (Figures 8 & 9)

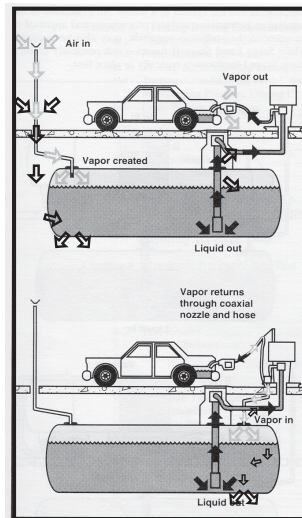


Figure 9, Stage II

What Do I Need to Do During Delivery of Fuel to My Station?

During delivery of fuel to gas station tanks, the owner/operator of the station must ensure that the delivery driver connects the vapor recovery lines. Allowing gasoline to be delivered without use of proper attachments to the vapor recovery lines, as required under state law, is subject to formal enforcement action against the owner/operator.

Note: In eastern WA counties, transport tanks with a total capacity less than 4,000 gallons are exempt from the above requirement if the transport tank was in use prior to July 1, 1993. WAC 173-491-040(c)(ii)(B)

What Requirements Apply to My Daily Operations for Stage I & Stage II?

Requirements for daily operations:

1. Stage I vapor recovery equipment must be maintained in good working condition at all times.

a. The protective caps must be on tight and locked down unless actively unloading fuel into tanks. Sealing gaskets and poppet valves must be in good working condition. (Figure 10, 11, and 12)

b. The adapter on fill tube and vapor recovery tube does not turn (for non-swivel adapters only). (Figure 11)

c. Fill tube gasket is in good working condition. (Figure 12) Fill tube is within 6" or less of the bottom of the UST. (Figure 3)

d. Spill bucket is dry and clean.

e. UST vent has a pressure valve or similar cap to reduce emissions.

2. Stage II vapor recovery equipment must be maintained in good working condition at all times:

For all Stage II Systems:

a. Hose should be in good repair. Visually inspect for wear, cuts, holes and correct fuel flow direction. Inspect entire hose for liquid leaks. Make sure hose retractor and swivels are working properly.

b. Breakaway — check for damage and fuel flow is in correct direction. (Figure 13)

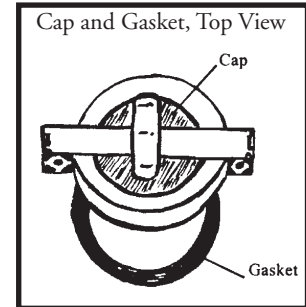


Figure 10, Fill Tube

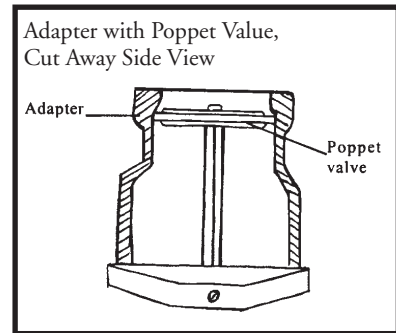


Figure 11, Fill Tube

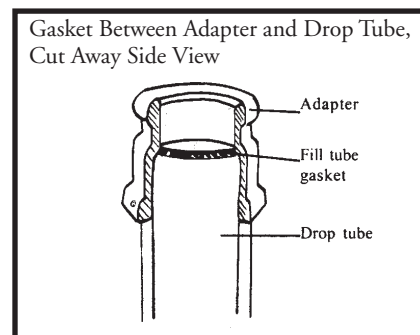


Figure 12, Fill Tube

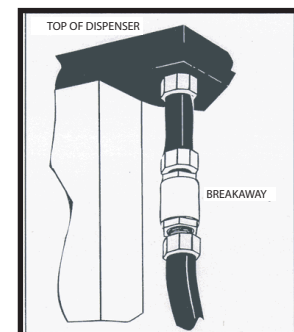


Figure 13, Breakaway

- c. Nozzle, latch coil and hold open latch - Check for nozzle spout for secure fit and uniformly round, vapor holes on nozzle are free of debris, and latch coil(s) in good repair. Make sure hold-open latch is operating properly.

For Vapor Balance Systems: (Figure 14)

- a. Face plate — visually inspect, should be smooth and uniform.
- b. Hose/liquid removal device — does hose length when in holster create a loop no longer than 10". If more than 10" a liquid removal device is required.
- c. Liquid removal device — check hose for liquid accumulation by lowering nozzle to small container on ground and compressing bellows to see if fuel drains from hose. If there is accumulation of fuel, the liquid removal device in hose is damaged or not installed.
- d. Dispenser holster — holster should not compress nozzle bellows when placed in holster.

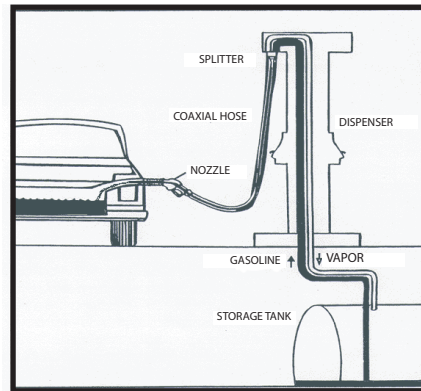


Figure 14, Vapor Balance

For Vacuum-assist Systems: (Figure 15)

- a. Vacuum pump — during refueling, listen to pump to ensure it's working.
3. Maintenance and annual throughput records must be kept for the previous 24 months of operation. Maintenance records should include dates and nature of maintenance, including all certification tests performed. Records can be kept at the gas station or at a corporate office. Records must be made available to Spokane Clean Air staff upon request.

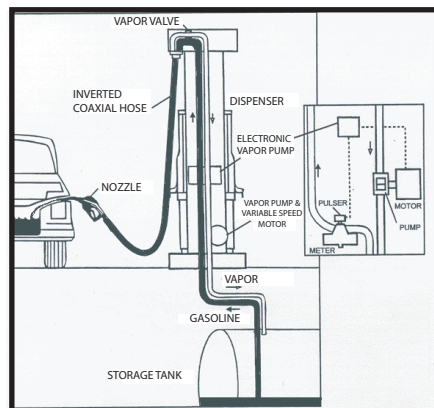


Figure 15, Vacuum-assist

- 4. The owner/operator must display a copy of the approved Notice of Construction (if applicable) and Spokane Clean Air Annual Registration Certificate at the facility.

What Does Spokane Clean Air Look for During a Facility Inspection?

Spokane Clean Air staff visit stations periodically to conduct inspections. Inspectors check the vapor recovery systems to ensure everything is in good working order. This includes checking all components to see that they are certified and defect-free.

What Happens If I Violate Spokane Clean Air Regulations?

Penalties for violating air pollution regulations can be up to \$10,000 per violation, per day. Remember, reducing VOCs provides for a safer workplace and a healthier environment. The most effective way to comply with regulations is to contact Spokane Clean Air. Nobody wants surprises during an inspection, including the inspector and the station personnel. Make sure everyone at your facility understands and follows all of the vapor recovery requirements.

How Will A Self-inspection Checklist Help Me?

A self-inspection checklist is a good tool to help ensure that your facility is in compliance. The information in this guide covers the basic requirements you need to know, and will help you prepare for periodic air pollution control inspections. Examples of self-inspection checklists are provided at the end of this booklet, but you may want to come up with a specific checklist for your facility.

Identify any potential problems and take action. Replace or repair defective components immediately. Do your part to help yourself, your customers, and the environment.

What Other Agencies Regulate Gas Stations?

City of Spokane Fire Department, call 625-7000 for the inspector in your area.

Fire Districts in Spokane County, check the phone book business section under Fire Department for the fire district in your area.

Spokane County, Division of Building & Planning, call 477-3675 for information.

City of Spokane, Department of Building Services, call 625-6300 for information.

City of Spokane Valley, Building Division, call 688-0036 for information.

City of Airway Heights, Building Department, call 244-5514 for information.

City of Cheney, Department of Community Development, call 498-9240.

City of Deer Park, Department of Building Services, call 276-8802 for information.

City of Liberty Lake, Department of Community Development, call 755-6707.

Washington Department of Labor & Industries, call 324-2600 for information.

Washington Department of Ecology, call 329-3400 for information.

Where Can I Learn More About Vapor Recovery?

Spokane Regional Clean Air Agency
3104 E. Augusta Avenue
Spokane, WA 99207
(509) 477-4727
www.spokanecleanair.org

California Air Resources Board
www.arb.ca.gov/vapor/vapor.htm

American Petroleum Institute
1220 L. Street N.W.
Washington, DC 20005
(202) 682-8000
www.api.org

The Petroleum Equipment Institute
P.O. Box 2380
Tulsa, OK 74101-2380
www.pei.org

Stage I Vapor Recovery Air Quality Compliance Self-inspection Checklist

This self-inspection checklist is provided by Spokane Clean Air to help gasoline station owners/operators understand air quality compliance requirements. **The checklist is generic for the two different types of Stage I vapor recovery systems: Dual Point and Coaxial.** Each station may need to expand or adjust the checklist based upon individual operations. Businesses should not assume that the checklist is exhaustive and should not rely solely on the checklist for compliance. It is the responsibility of the business to fully comply with all environmental laws. If there is a conflict between the checklist and Spokane Clean Air regulations, the regulations will govern. **Please remember that periodic completion of the checklist is not a substitute for ongoing compliance.**

Stage I Vapor Recovery Checklist	Date:	By:			
Stage I Vapor Recovery - Dual Point Systems			Yes	No	N/A
<i>Fill Side</i>					
1. Is the fill dust cap in place (doesn't turn with hand pressure), sealed and in good condition?					
2. Is the gasket on the dust cap present and in good condition?					
3. Is the fill adapter tight on the fill tube riser (doesn't turn with hand pressure; not applicable for swivel-type adapters)?					
4. Is the fill tube in good repair?					
5. Is the fill tube no further than 6" from the bottom of the tank?					
6. Is the spill bucket dry and free of dirt and debris?					
<i>Vapor Side</i>					
1. Is the vapor dust cap in place, sealed and in good condition?					
2. Is the gasket on the dust cap present and in good condition?					
3. Is the vapor adapter tight on the vapor riser (doesn't turn with hand pressure; not applicable for swivel-type adapters)?					
4. Is the poppet valve operating properly (pops back into place when depressed)?					
5. Is the gasket on the poppet valve in place and in good condition?					
6. Do the tank vents have pressure vacuum valve caps (may not be required, but will reduce gasoline loss)?					
7. Do the tanks have overflow protection devices on them and are they in good repair (may not be required, but a good idea to prevent spills)?					
Stage I Vapor Recovery - Coaxial Systems					
1. Is dust cap in place (doesn't turn with hand pressure), sealed and in good condition?					
2. Is the gasket on the dust cap present and in good condition?					
3. Is the fill adapter tight on the fill tube riser (doesn't turn with hand pressure; not applicable for swivel-type adapters)?					
4. If spring-loaded, does the fill tube operate properly (doesn't jam)?					
5. Does the spring loaded fill tube seal against the coaxial fitting, and is the gasket in good condition?					
6. Is the fill tube in good repair?					
7. Is the fill tube no further than 6" from the bottom of the tank?					
8. Is the spill bucket dry and free of dirt and debris?					

Note: All answers should be Yes or N/A (not applicable). If any answers are No, you should carefully review Spokane Clean Air's regulations to determine if your facility is out of compliance, and take appropriate measures to come into compliance.

Stage II Vapor Recovery Air Quality Compliance Self-inspection Checklist

This self-inspection checklist is provided by Spokane Clean Air to help gasoline station owners/operators understand air quality compliance requirements. **The checklist is generic for one of the two different types of Stage II vapor recovery systems — Vacuum-assist.** (Vapor Balance checklist is on page 16.) Each station may need to expand or adjust the checklist based upon individual operations. Businesses should not assume that the checklist is exhaustive and should not rely solely on the checklist for compliance. It is the responsibility of the business to fully comply with all environmental laws. If there is a conflict between the checklist and Spokane Clean Air regulations, the regulations will govern. **Please remember that periodic completion of the checklist is not a substitute for ongoing compliance.**

Stage II Vapor Recovery Checklist	Date:	By:			
Stage II Vapor Recovery - Vacuum-assist	Yes	No	N/A		
<i>Nozzle</i>					
1. Is the nozzle securely fastened to the dispenser?					
2. Is the nozzle uniformly round (not dented, misshapen)?					
3. Are the vapor recovery holes in the nozzle free of debris (not plugged)?					
4. Is the latch coil on the nozzle in place?					
5. Is the mini-boot (bellows) on the nozzle in good repair (no tears, missing)?					
6. Is the hold-open latch in good condition?					
<i>Hose</i>					
1. Is hose in good condition?					
2. Is hose fuel flow installed in the correct direction?					
3. Is hose off of the ground?					
4. Does hose length when in holster create a loop no longer than 10"?					
5. Is hose retractor working and in good condition?					
6. Is the hose swivel in good condition (not dirty, stuck)?					
7. Is the breakaway in good condition and installed in correct direction?					
<i>Liquid Leaks</i>					
1. Are there any exterior leaks along the entire length of hose (from break away to tip of nozzle)?					
<i>Vacuum Pump</i>					
1. Is the vacuum pump in operation during vehicle refueling?					

Note: All answers should be Yes or N/A (not applicable). If any answers are No, you should carefully review Spokane Clean Air's regulations to determine if your facility is out of compliance, and take appropriate measures to come into compliance.

Stage II Vapor Recovery Air Quality Compliance Self-inspection Checklist

This self-inspection checklist is provided by Spokane Clean Air to help gasoline station owners/operators understand air quality compliance requirements. **The checklist is generic for one of the two different types of Stage II vapor recovery systems — Vapor Balance.** Vacuum-assist checklist is on page 15. Each station may need to expand or adjust the checklist based upon individual operations. Businesses should not assume that the checklist is exhaustive and should not rely solely on the checklist for compliance. It is the responsibility of the business to fully comply with all environmental laws. If there is a conflict between the checklist and Spokane Clean Air regulations, the regulations will govern. **Please remember that periodic completion of the checklist is not a substitute for ongoing compliance.**

Stage II Vapor Recovery	Date:	By:			
Stage II Vapor Recovery - Balance			Yes	No	N/A
<i>Nozzle</i>					
1. Does the nozzle fit properly in the dispenser holder (bellows shouldn't be compressed when in holder)?					
2. Is the nozzle securely fastened to the dispenser?					
3. Is the nozzle uniformly round (not dented, misshapen)?					
4. Is the faceplate smooth and uniform?					
5. Is the mini-boot (bellows) on the nozzle in good repair (no tears, missing)?					
6. Are the check valves and interlock mechanisms in good condition?					
7. Is the hold-open latch in good condition?					
<i>Hose</i>					
1. Is hose in good condition?					
2. Is hose fuel flow installed in the correct direction?					
3. Is hose off of the ground?					
4. Does hose length when in holster create a loop no longer than 10"?					
5. Is hose retractor working and in good condition?					
6. Is the hose swivel in good condition (not dirty, stuck)?					
7. Is the breakaway in good condition and installed in correct direction?					
<i>Liquid Accumulation and Leaks</i>					
1. If liquid removal device is installed in hose, is it working properly?					
2. Is there fluid accumulation in the hose (put container on ground, lower nozzle into container to see if any drains out of hose)?					
3. Are there any exterior leaks along the entire length of hose (from break away to tip of nozzle)?					

Note: All answers should be Yes or N/A (not applicable). If any answers are No, you should carefully review Spokane Clean Air's regulations to determine if your facility is out of compliance, and take appropriate measures to come into compliance.

Notes



working with you for clean air

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