



## MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Air Quality Division

# Notification of Performance Testing for Gasoline Dispensing Facilities (GDFS)

40 CFR Part 63, Subpart CCCCCC (40 CFR 63.11110 – 40 CFR63.11132)

## Instructions

### 1. Who Must Provide Notification?

On January 10, 2008, the United States Environmental Protection Agency (USEPA) finalized a National Emission Standard for Hazardous Air Pollutants (NESHAP) for gasoline dispensing facilities (GDFs). This standard, referred to as the NESHAP, requires certain GDFs to provide notifications to the USEPA prior to conducting performance tests of their vapor balance systems.

GDFs with a monthly throughput of 100,000 gallons of gasoline or more must install vapor balance systems according to either Condition 7 or 8, submit a notification and conduct the performance tests. The table below explains Conditions 7 and 8. GDFs subject to and complying with Condition 6 (i.e., subject to and complying with a state vapor balance requirement prior to January 10, 2008) do not have to conduct the performance tests identified in Conditions 7 and 8, and do not have to submit a notification of performance testing.

### Vapor Balance System Conditions 7 and 8

7. Install and operate a vapor balance system according to all of the following management practices.
  - a) All vapor connections and lines on the storage tank shall be equipped with closures that seal upon disconnect.
  - b) The vapor line from the storage tank to tanker truck shall be vapor-tight which is defined as no loss of vapors.
  - c) The vapor balance system shall be designed such that the pressure in the tanker truck does not exceed 18 inches of water pressure or 5.9 inches water vacuum during product transfer. The vapor recovery and product adaptors, and the method of connection with the delivery elbow, shall be designed so as to prevent the over-tightening or loosening of fittings during normal delivery operations.
  - d) If a gauge well separate from the fill tube is used, it shall be provided with a submerged drop tube that is no more than 12 inches from the bottom of the storage tank if the tube was installed on or before November 9, 2006, or no more than 6 inches from the bottom of the storage tank is if the tube was installed after November 9, 2006.
  - e) Use vapor tight caps for all liquid fill connections.
  - f) Pressure/vacuum (PV) vent valves shall be installed on the storage tank vent pipes. The pressure specifications for PV vent valves shall be a positive pressure setting of 2.5 to 6.0 inches of water and a negative pressure setting of

6.0 to 10.0 inches of water. The total leak rate of all PV vent valves at an affected facility, including connections, shall not exceed 0.17 cubic foot per hour at a pressure of 2.0 inches of water and 0.63 cubic foot per hour at a vacuum of 4 inches of water.

- g) The vapor balance system shall be capable of meeting the static pressure performance requirement of the following equation:

$$P_f = 2e^{-500.887/v}$$

Where:

$P_f$  = Minimum allowable final pressure, inches of water.

$v$  = Total ullage affected by the test, gallons.

$e$  = Dimensionless constant equal to approximately

2.718.  $2$  = The initial pressure, inches of water.

- h) If construction of the storage tank commenced on or before November 9, 2006, it can have either a coaxial or dual-point vapor balance system. If construction of the storage tank commenced after November 9, 2006 at existing, new or reconstructed sources, then the tank must be equipped with a dual-point vapor balance system.

Conduct CARB Vapor Recovery Test Procedure TP-201.1E "Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves."

Conduct CARB Vapor Recovery Test Procedure TP-201.3 "Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities."

8. Install a vapor balance system that achieves a 95% emission reduction or better.

Conduct CARB Vapor Pressure Test Procedure TP-201.1 "Volumetric Efficiency for Phase I Vapor Recovery Systems."

Conduct CARB Vapor Recovery Test Procedure TP-201.1E "Leak Rate and Cracking Pressure of Pressure/Vacuum Vent Valves."

Conduct CARB Vapor Recovery Test Procedure TP-201.3 "Determination of 2-Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities."

## 2. Definitions

**Area source** – any stationary source that has the potential to emit less than 10 tons per year of a single hazardous air pollutant (HAP) and less than 25 tons per year of any combination of HAPs.

**Dual-point vapor balance system** - a type of vapor balance system in which the storage tank is equipped with an entry port for a gasoline fill pipe and a separate exit port for a vapor connection.

**Existing source** – an area source that started construction of the gasoline dispensing facility on or before November 9, 2006.

**Gasoline** - any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4 psi (pounds per square inch of pressure) or greater which is used as a fuel for internal combustion engines.

**Gasoline cargo tank** - a delivery tanker truck or railcar which is loading gasoline or which has loaded gasoline on the immediately previous load.

**Gasoline dispensing facility (GDF)** - is any stationary facility dispensing gasoline into the fuel tank of a motor vehicle, motor vehicle engine, non-road vehicle, or non-road engine, including a non-road vehicle or non-road engine used solely for competition. This includes, but is not limited to, retail gasoline stations and many fleet vehicle refueling centers, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps and other gasoline-fueled engines and equipment.

**Major source** – any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, considering controls, 10 tons per year (tpy) or more of any single HAP, or 25 tpy or more of any combination of HAPs.

**Monthly throughput** – the total volume of gasoline that is loaded into or dispensed from all gasoline storage tanks at each GDF during the current day, plus the previous 364 days, and then dividing that sum by 12.

**Motor vehicle** – any self-propelled vehicle designed for transporting persons or property on a street or highway.

**New source** - an area source that started construction of the gasoline dispensing facility after November 9, 2006.

**Reconstructed Source** - an area source that started construction of the gasoline dispensing facility on or prior to November 9, 2006, and modifications (i.e., the fixed capital costs associated with the changes to the gasoline storage tanks and associated piping exceeded 50 percent of the fixed capital cost that would be required to construct a comparable new storage tank system) occurred after November 9, 2006.

**Submerged filling** - is the filling of a gasoline storage tank through a submerged fill pipe whose discharge is no more than six inches from the bottom of the tank. Bottom filling of gasoline storage tanks is included in this definition.

**Vapor balance system** - a combination of pipes and hoses that create a closed system between the vapor spaces of an unloading gasoline cargo tank and a receiving storage tank such that vapors displaced from the storage tank are transferred to the gasoline cargo tank being unloaded.

**Vapor-tight** - equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of one inch from the source.

**Part A – Date of Schedule Performance Test(s)**. Identify the tanks, their capacity, and date of installation on the form. Check the boxes corresponding to the test procedures you will be performing on your tank(s). See table below for the tests that are required. Identify the date the performance tests will be conducted.

The purpose of the notification is to give the USEPA the opportunity to review and approve the site-specific test plan as required under Title 40 Part 63, Subpart A, Section 63.7(c) of the Code of

Federal Regulations (40 CFR Part 63). The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program.

**California Air Resources Board Vapor Recovery Test Procedures**

<b>Method of Complying with Vapor Balance Requirements</b>	<b>TP-201.1 – Volumetric Efficiency for Phase I Vapor Recovery Systems</b>	<b>TP-201.1E – Leak Rate and Cracking Pressure of Pressure Vacuum Vent Valves</b>	<b>TP-201.3 – Determination of 2-inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities</b>
Condition 7	Not applicable	Every three years	Every three years
Condition 8	Every three years	Every three years	Every three years

**Part B – Compliance Certification** must be completed by all GDFs required to submit a notification.

**4. When Must the Notification Forms be Submitted?**

For **new sources**, the performance tests must be conducted upon startup of the GDF. For **existing sources fueling into motor vehicles**, the performance tests must be conducted by January 10, 2011. For **existing sources that only fuel gasoline into tanks other than motor vehicles**, the performance tests must be conducted by January 24, 2014. The Notification of Performance Testing must be submitted at least 60 days before the day of the performance test.

**5. Where do I send the Completed Form?**

Please make a copy of this form and submit **the original signed copy** by United States mail, or by another courier, to the USEPA Region 5 Office at the following address:

USEPA Region 5  
 Compliance Tracker (AE-17J)  
 77 West Jackson Blvd.  
 Chicago, IL 60604

# Notification of Performance Testing for Gasoline Dispensing Facilities (GDFS)

40 CFR Part 63, Subpart CCCCCC (40 CFR 63.11110 – 40 CFR63.11132)

Please review the Instructions before completing this form. Please print or type all information.

## Facility Information

Company Name: \_\_\_\_\_

Company Phone: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Owner/Operator Contact Name and Title: \_\_\_\_\_

Owner Phone: \_\_\_\_\_

Owner Mailing Address (if different than company): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

Owner/Operator Email: \_\_\_\_\_

Facility Name (if different than company): \_\_\_\_\_

Facility Phone: \_\_\_\_\_

Facility Address (if different than company): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_

State Registration Number (SRN) if known: \_\_\_\_\_

Please check your GDF source type (*Refer to Instructions for definitions*):

New Source (Date of Startup: \_\_\_\_\_)

Existing Source (*check box that applies below*)

Load gasoline into motor vehicles **OR**

Load gasoline into **only** tanks other than motor vehicles

Reconstructed Source (Date of Reconstruction: \_\_\_\_\_)

Please check how you calculate the GDF Monthly Throughput (*Refer to Instructions for definitions*):

- Gasoline *loaded* into all GDF storage tanks
- Gasoline *dispensed* from all GDF storage tanks

**Part A – Date of Scheduled Performance Test(s)**

Please complete the table below. See instructions.

<b>Gasoline Tank ID</b>	<b>Capacity (gallons)</b>	<b>Date of Tank Installation (mm/dd/yyyy)</b>	<b>Performance Test Conducted</b> (Enter either TP-201.1E, TP-201.3 or TP-201.1 (Definitions below))	<b>Performance Test Date</b> (mm/dd/yyyy)

TP-201.1E: Leak Rate and Cracking Pressure of Pressure Vacuum Vent Valves

TP-201.3: Determination of 2-inch WC Static Pressure Performance

TP-201.1: Volumetric Efficiency for Phase I Vapor Recovery Systems

**Part B – Compliance Certification**

I certify that the statements and information in this report are true, accurate, and complete.

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Signature of "Responsible Official\*" Date

Name of "Responsible Official\*": \_\_\_\_\_

Title of "Responsible Official\*": \_\_\_\_\_

Phone of "Responsible Official\*": \_\_\_\_\_

\*A "Responsible Official" can be:

- The president, vice-president, secretary, or treasurer of the company who owns the facility.
- The owner of the facility.
- The facility engineer or supervisor.
- A government official if the plant is owned by the federal, state city or county government.
- A ranking military officer if the plant is located on a military base.

Please make copies of this completed form and submit **the original signed copy** by United States mail, or by another courier, to USEPA Region 5 Office at the following address:

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Compliance Tracker (AE-17J)  
77 West Jackson Blvd.  
Chicago, IL 60604

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