

What air quality regulations do gasoline station owners and gasoline tanker truck drivers have to comply with?

Up to 15 gallons of gasoline vapors can be lost when a station's storage tank is filled. These vapors lead to the formation of ground level ozone, which triggers a variety of respiratory health problems. To lessen the public health impacts, the Michigan Departments of Agriculture (MDA) and Environmental Quality (DEQ) require vapor balance systems at gasoline stations in certain counties and metropolitan areas and submerged filling at gasoline stations statewide. On January 10, 2008, the U.S. Environmental Protection Agency (U.S. EPA) enacted stringent requirements to minimize the release of gasoline vapors during the filling of storage tanks.

Vapor balance equipment minimizes the release of gasoline vapors when underground storage tanks are filled at gasoline stations through a combination of pipes and hoses that collect displaced gasoline vapors from the tank and route them back in the tanker truck. The terminal recovers the gasoline when the tanker truck returns to reload. The storage tank submerged fill pipes must be no more than six inches from the bottom of the tank to reduce vapor generation from splashing when the tank is filled.

Who is subject to the existing state requirements and what are they required to do?

All gasoline stations must have submerged fill pipes in their storage tanks. Stations with an annual throughput of 120,000 gallons of gasoline or more in the counties of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne or stations with an annual throughput of 250,000 gallons or more located in the metropolitan areas of Flint, Lansing, or Grand Rapids must use a vapor balance system when their storage tanks are filled.

Who is subject to the new federal standard and what are they required to do?

All Michigan gasoline stations, regardless of throughput are subject to management requirements. Stations with a monthly throughput of 10,000 gallons or more are required to comply with the management and submerged filling requirements. All Michigan gasoline stations with a monthly throughput of 100,000 gallons or more must comply with the management and submerged filling requirements and use vapor balance systems that meet specific criteria when filling storage tanks, as well as test the cracking pressure and leak rate of their pressure/vacuum vent valves and the static pressure of their storage tanks. These gasoline stations are also subject to federal notification, recordkeeping, and reporting requirements.

If a station is located in an area regulated under one of the two state requirements but its throughput is less than 100,000 gallons per month, do they still need to use vapor balance equipment?

A station owner needs to review the state and federal requirements separately and comply with all of the requirements that apply. They may be subject to more than one agency's requirements. For example, if a station is located in Wayne County and its monthly throughput is 90,000 gallons, they are not subject to the vapor balance requirement under the federal standard but could still be subject to the state vapor balance rules if their annual throughput of gasoline is 120,000 gallons or more. Table 1 contains a snapshot of the different requirements found under each rule and standard.

By what date does the new federal standard have to be met?

New stations (i.e., started operation after November 9, 2006) had to achieve compliance on January 10, 2008, or upon startup, whichever is later. Existing gasoline stations (i.e., started operation on or before November 9, 2006) must achieve compliance by January 10, 2011.

What are the responsibilities of the distributor and tanker truck driver?

Drivers must use vapor balance equipment at all gasoline stations subject to the state rules and federal standard. Pressure/vacuum tests must be conducted annually on tanker trucks. Trucks operating in Marquette County or the lower half of the Lower Peninsula of Michigan must conduct annual pressure/vacuum tests

and submit the result to the DEQ, Air Quality Division. The Division will review the results and provide certification. All trucks operating outside this region, delivering gasoline to stations with a monthly throughput of 100,000 gallons or more must also conduct annual pressure/vacuum test on the tankers and keep the results on the truck.

What if I have questions about the state requirements and the federal standard?

Please refer to the “Gasoline Station Owners & Tanker Truck Drivers: What You Should Know About Vapor Balance” located on the DEQ Environmental Assistance Program’s Web site at www.michigan.gov/deqenvassistance. Select “Clean Air Assistance” under “Related Links” and then select “Stage I Gasoline Vapor Balance” under “Compliance Assistance.” Additional questions can be directed to the DEQ’s Environmental Assistance Program at 800-662-9278.

The Web site contains links to the above fact sheet; a listing of tanker truck testing companies; the initial notification and notification of compliance form and instructions; the notification of performance testing form; acceptable testing methods; state rules; and the federal standard.

Table 1 – Summary of State and Federal Gasoline Vapor Requirements			
	DEQ	MDA	U.S. EPA
Applicability	Metropolitan Areas of Detroit, Flint, Lansing, and Grand Rapids	Counties of Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne	Nationwide
Management Practices	Not Applicable	Not Applicable	All Stations, regardless of throughput
Submerged fill	Stations statewide with a annual throughput of 250,000 or more	All stations located within the above counties	All stations with a monthly throughput of 10,000 gallons or more
Vapor Balance	Stations within the above metropolitan areas with an annual throughput of 250,000 gallons or more	Stations located within the above counties with an annual throughput of 120,000 gallons or more	Stations with monthly throughput of 100,000 gallons or more
Testing and Monitoring	Not Applicable	Not Applicable	Stations with monthly throughput of 100,000 gallons or more
Notification	Not Applicable	Not Applicable	Stations with monthly throughput of 10,000 gallons or more
Recordkeeping and Reporting	Not Applicable	Not Applicable	Stations with monthly throughput of 100,000 gallons or more
Compliance Date	December 31, 1982		For existing stations, January 10, 2011. For new stations, January 10, 2008 or upon startup (whichever is later)

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