

Air Program Fact Sheet

Stage II vapor recovery rule changes for gasoline dispensing facilities

June 2017

Until 2012, the U.S. Environmental Protection Agency (EPA) required Stage II vapor recovery systems on most gas dispensers in nine counties in southeastern Wisconsin. Due to changes to federal and state requirements, gasoline dispensing facilities may voluntarily remove or decommission these systems. Review this factsheet for more information about the relevant federal and state actions that led to the change in regulations, and the Stage II system removal and decommissioning requirements.

Background

Stage II vapor recovery involves capturing and controlling gasoline vapors when a vehicle is being fueled at the pump. The system uses special dispensing nozzles and equipment that collect the vapors and pump them back into the storage tank below ground. Without vapor recovery systems in place, volatile organic compounds and hazardous air pollutants (such as benzene) are released into the air as part of gasoline vapors.

For decades, Stage II vapor recovery systems were required in the following counties in southeastern Wisconsin: Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, and Waukesha counties. These areas were not attaining federal ozone standards, and the Stage II requirements reduced the release of VOCs that contribute to ozone formation.

However, newer vehicles are equipped with their own vapor recovery systems, called onboard refueling vapor recovery or ORVR. The use of both ORVR and Stage II systems to control gasoline vapors is largely redundant. In May 2012, EPA determined that ORVR reached widespread use, and that states no longer needed to require Stage II vapor recovery systems in ozone nonattainment areas.

How have Stage II requirements changed?

Following EPA's finding, the Wisconsin Department of Natural Resources (DNR) repealed the Stage II requirements formerly contained in s. NR 420.045 of the Wisconsin Administrative Code. Gasoline stations in the nine affected counties may voluntarily remove or decommission their Stage II vapor recovery systems. However, the Stage I requirements contained in ch. NR 420 have not changed. Gasoline stations in Stage I counties must continue to operate and maintain Stage I systems.

What are the requirements for removing or decommissioning Stage II systems?

Gasoline dispensing facilities are able to remove or decommission their Stage II systems, but are not required to do so. However, the Department of Agriculture, Trade and Consumer Protection (DATCP) expects that facilities follow proper decommissioning procedures if they do decide to remove or decommission their systems. These procedures are outlined in PEI 300-09, Chapter 14.

Facilities should submit a **formal notification, completed decommissioning checklist, and final pressure decay test report** to DATCP within **15 business days** of decommissioning. The contractor completing the work must certify that the appropriate decommissioning procedure was followed by signing the notification form. The notification form and checklist can be

accessed by visiting datcp.wi.gov and searching “storage tank forms.” Refer to form TR-WM-122. For more information about decommissioning requirements, contact Greg Bareta, Storage Tank Regulation Section Chief, at (608) 224-5150 or greg.bareta@wisconsin.gov.

The DNR is no longer involved in the decommissioning process. Specifically, facilities are no longer required to notify the department of the date and time of the final decommissioning test, and the department no longer needs to witness the test.

Facilities that remove their Stage II systems should ensure they are continuing to meet state Stage I and vent cap requirements, and federal vapor recovery requirements. These requirements include:

- Operating and maintaining vapor balance and Stage I vapor recovery systems following best practices.
- Certifying use of only fuel suppliers that employ vapor balance or Stage I vapor recovery in their fuel distribution network.
- Maintaining use of "bottom filling" (submerged filling) for all on-site fuel storage tanks used for gasoline, as defined in ch. NR 420, Wis. Adm. Code and the federal NESHAP (40 CFR part 63, subpart CCCCCC).
- Monitoring all fuel deliveries to ensure proper vapor-return hose connection and proper resealing of all opened tank access points after the fuel has been delivered.
- Maintaining vent caps (pressure vacuum valves on vent pipes) as required. The vent caps substantially enhance the control efficiency of vapor balance and Stage I vapor recovery systems.
- Following procedures for proper closure of all vapor lines at the pump or at the Stage II control equipment such that a water-tight and VOC vapor-tight seal is maintained at all times, in accordance with PEI 300-09, Chapter 14.
- Conducting formal maintenance and integrity and pressure testing of all critical vapor balance and Stage I vapor recovery system components, including cleaning and tuning the vent caps at regular intervals, preferably every six months.

In addition, DNR recommends facilities follow these vapor reduction **best practices**:

- As fuel nozzle technology evolves, use nozzles that eliminate or limit fugitive fuel loss (nozzle drips).
- Use low VOC permeation hoses.
- Install and maintain vent caps if they are not required.
- For larger stations, consider the use of In-Station Diagnostic (ISD) technology. The use of ISD technology is standard in California for monitoring Stage I system operation.

What are the requirements for Stage II systems that are not removed or decommissioned?

Facilities that retain their Stage II systems must maintain and operate them in accordance with s. ATCP 93.230 (10), Wis. Adm. Code. Contact Greg Bareta, Storage Tank Regulation Section Chief, at (608) 224-5150 or greg.bareta@wisconsin.gov with any questions about these requirements.

The DNR no longer regulates the operation and maintenance of Stage II systems and encourages the removal of these systems to avoid redundancies. However, the department recommends that facilities retaining their systems follow the former requirements contained in the repealed s. NR 420.045, Wis. Adm. Code as best management practices.

Do other air pollution requirements apply to gasoline dispensing facilities?

Yes. Wisconsin gasoline dispensing facilities may be subject to a number of other requirements:

- **Stage I vapor recovery requirements** contained in s. NR 420.04 (3), Wis. Adm. Code. These requirements are administered by DNR and affect gasoline dispensing facilities located in 20 Wisconsin counties. Non-exempt facilities in these counties must install and maintain Stage I vapor recovery systems.
- **Wisconsin regulations for the control of hazardous air pollutants** contained in ch. NR 445, Wis. Adm. Code (state HAPs or air toxics rule). This rule is administered by DNR and requires very large gasoline dispensing facilities to [control air toxics emissions](#).
- **Regulations for Flammable, Combustible and Hazardous Liquids** contained in ch. ATCP 93, Wis. Adm. Code. This rule is administered by DATCP and regulates gasoline storage tanks and associated piping.
- **National Emission Standards for Hazardous Air Pollutants for gasoline dispensing facilities** contained in 40 CFR part 63, subpart CCCCCC. This rule is administered by EPA and regulates vapor control during the filling of gasoline storage tanks. Large facilities are required to install and operate vapor balance systems.

For more information:

Refer to the Small Business Environmental Assistance Program (SBEAP) [resources for gasoline dispensing facilities](#) (visit dnr.wi.gov and search “gas stations”). The webpage provides links to relevant regulatory documents, forms, and a compliance calendar for gasoline dispensing facilities. The calendar contains factsheets summarizing the state and federal requirements listed above.

DISCLAIMER — This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

The Wisconsin Department of Natural Resources provides equal opportunity in employment, programs, services and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, DC 20240. This publication is available in alternative format (large print, Braille, audio tape, etc.) upon request. Please contact the Bureau of Air Management, phone 608-266-7718, for more information.



Wisconsin Department of Natural Resources
Bureau of Air Management
Box 7921- AM/7
Madison, WI 53707
PHONE 608-266-7718 • FAX 608-267-0560
Publication AM-492 2017