

Background

The Department of Natural Resources and Environmental Control (DNREC), Division of Air Quality (DAQ) is revising 7 **DE Admin. Code 1124** Section 26 “Gasoline Dispensing Facility Stage I Vapor Recovery” and Section 36 “Vapor Emission Control at Gasoline Dispensing Facilities.” Those two sections are commonly known in Delaware as “the Stage I rule” and “the Stage II rule,” respectively. The objectives of the revisions are (1) to phase out Stage II vapor recovery systems at Delaware gasoline dispensing facilities (GDFs), and (2) to set up effective controls on vapor emission from GDFs’ gasoline underground storage tanks (USTs) after phasing out Stage II.

As required by the Clean Air Act (CAA), Delaware has implemented the Stage I and Stage II rules since 1993 as parts of its overall efforts to attain the National Ambient Air Quality Standard (NAAQS) of the ground-level ozone. All Delaware GDFs with monthly throughputs greater than 10,000 gallons have installed one of the vacuum-assist Stage II vapor recovery systems as adopted by California Air Resources Board (CARB). Delaware has also required the GDFs to install regular Stage I vapor recovery systems for their USTs to control gasoline vapor emissions during gasoline delivery.

In addition, since 1998, automobile manufacturers have been required by the CAA to install on-board refueling vapor recovery (ORVR) systems on new vehicles. Both Stage II and ORVR systems are effective for controlling gasoline vapor emissions during vehicle refueling. However, vacuum-assist Stage II systems at GDFs and ORVR systems on vehicles are incompatible. Such incompatibility will cause vapor pressure increase in USTs, resulting in excessive vapor emission from USTs. The EPA issued a final rule in 2012 ([77 FR 28772](#))¹ allowing states in the ozone transport region (OTR), including Delaware, to phase out the GDFs’ Stage II vapor recovery requirements, provided the overall emissions at GDFs without Stage II systems do not increase.

In September 2015, Delaware revised its Stage II rule and started the current version for a trial period in which Delaware GDFs would be allowed to decommission their Stage II systems on a voluntary basis while implementing selective new control measures. The new control measures are designed for ensuring a vapor-tight condition of USTs after decommissioning Stage II systems. These new measures include upgrading the existing Stage I systems, installing continuous-pressure-monitoring (CPM) system for USTs, and implementing enhanced inspection and testing procedures. DAQ expected that, after a trial period of 2-3 years, sufficient data and experiences would be collected to approve or disapprove the new control measures in the trial rule.

After two years the trial rule became effective, DAQ coordinated on November 15, 2017, a meeting with GDF owners/operators, GDF company representatives, and regional

¹ 77 FR 28772, May 16, 2012. Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver, US Environmental Protection Agency. <https://www.govinfo.gov/content/pkg/FR-2012-05-16/pdf/2012-11846.pdf>

association representatives. Field data being collected by DAQ staff in more than two years were presented in the meeting with extensive discussion on the new control measures in the trial rule. In the meeting, DAQ and the industrial representatives agreed to move forward in decommissioning Stage II systems in Delaware on the basis of the trial rule. After the meeting, DAQ started revising the trial rule. Since then, field data collection and discussion have been continued among DAQ staff and GDF owners/operators.