



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION



DIVISION OF AIR QUALITY
AIR QUALITY, ENERGY, AND SUSTAINABILITY

POTENTIAL AIR QUALITY RULE REVISIONS

PROPOSED REVISIONS TO N.J.A.C. 7:27-16.3
GASOLINE TRANSFER OPERATIONS
STAGE I AND II VAPOR RECOVERY SYSTEMS



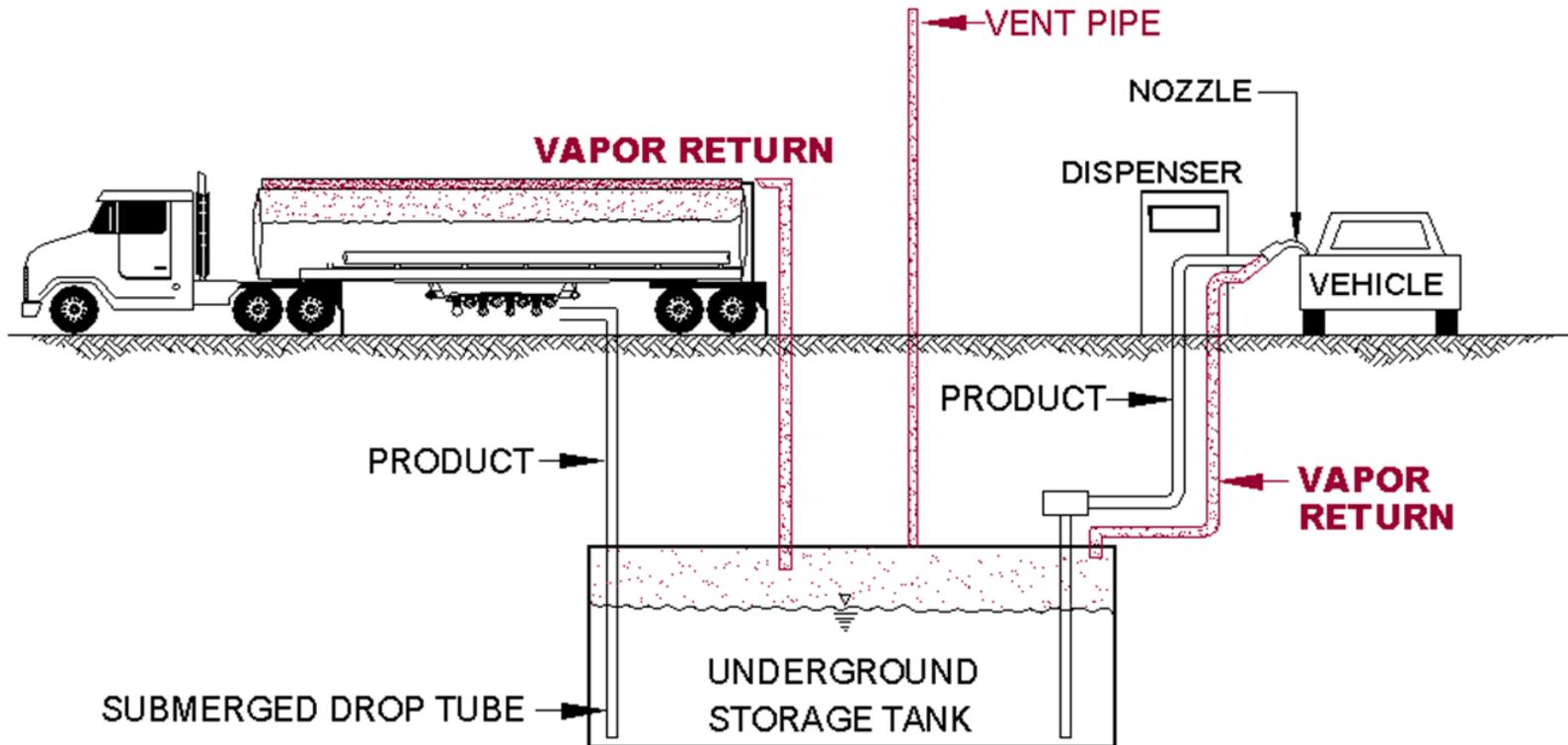
STAGE I AND STAGE II GASOLINE VAPOR RECOVERY SYSTEMS

- The Department is initiating a rule effort that affects new and existing gasoline dispensing facilities (GDFs) subject to N.J.A.C. 7:27-16.3
- The Division of Air Quality (DAQ) is seeking input from stakeholders regarding:
 - Decommissioning of Stage II vapor recovery systems (VRS), and
 - Potential options for Stage I and tank breathing vapor control systems

WHAT IS STAGE I AND STAGE II?

Stage I: Fuel Unloading

Stage II: Vehicle Refueling



WHY ARE WE DECOMMISSIONING STAGE II?

- The Federal government requires new vehicles to have [onboard refueling vapor recovery systems \(ORVR\)](#). ORVR collects gasoline refueling emissions within the vehicle.
- ORVR was required to be installed in new passenger cars in 1998 and sport utility vehicles and pickup trucks by 2006.
- Stage II is allowed to be removed once ORVR is in [widespread use](#).
- Some Stage II systems are [conflicting](#) with ORVR operation, causing an increase in emissions.

NEW GASOLINE DISPENSING FACILITIES

- Remove requirements to install Stage II gasoline refueling VRS at new GDFs
 - New VRS Installation Capital Cost Savings estimate:
 - \$14,000 – \$20,000
- Compliance advisory prior to rule adoption

EXISTING GASOLINE DISPENSING FACILITIES

- Require decommissioning of Stage II VRS at existing GDFs with the option to keep Stage II if the system is ORVR compatible and maintained.
- Decommissioning allowed effective with rule adoption
- Anticipated compliance date for completion is 2 years.

EXISTING GDF FACILITIES CONTINUED

- Decommissioning in accordance with "*PEI RP300-09 Recommended Practices for Installation and Testing of Vapor-Recovery Systems at Vehicle-Fueling Sites*" with the following addition:
 - Underground piping to be removed at the time of a major mod or if the system fails a pressure test due to underground system
- Decommissioning One Time Cost Estimate: \$8,000 - \$13,000
 - Includes labor (\$5,000 to \$10,000) and equipment, with higher (double) labor costs at vacuum assist sites
- Annual Maintenance Cost Savings Estimate: \$1,000 - \$4,000

POTENTIAL OPTIONS UNDER EVALUATION

1. Dual point fuel unloading at existing and/or all new and reconstructed Stage I facilities (*Federal rule is new or reconstructed facilities greater than 100,000 gallons per month*)
2. New PV valve every 2 years (already in permit as option in lieu of PV valve test)
3. Dripless/ECO nozzles
(\$120 each compared to \$50 for conventional)
4. Low permeation hoses
(\$150 each compared to \$90 for conventional)

POTENTIAL OPTIONS UNDER EVALUATION

CONTINUED

5. CARB Certified Stage I EVR system:
 1. Department already requires CARB 98% efficiency and PV valves
 2. Rotatable adaptors
 3. Fuel blend compatibility
 4. Low-emission spill containment manholes

6. Continuous Vapor/Pressure Monitoring Systems (leak detection) – \$4,500

7. Pressure Management (monitoring and control equipment) – Passive: \$10,000, Active: \$20,000-\$40,000

TESTING

- The Stage II dynamic backpressure and A/L volume ratio testing would no longer be required after decommissioning of Stage II systems (**cost savings**)
- The static pressure test and PV valve test requirements in the existing rule would remain, if continuous pressure monitoring is not adopted by the Department