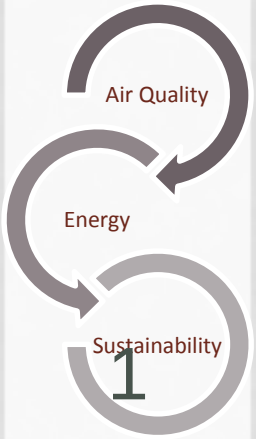
DIVISION OF AIR QUALITY

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



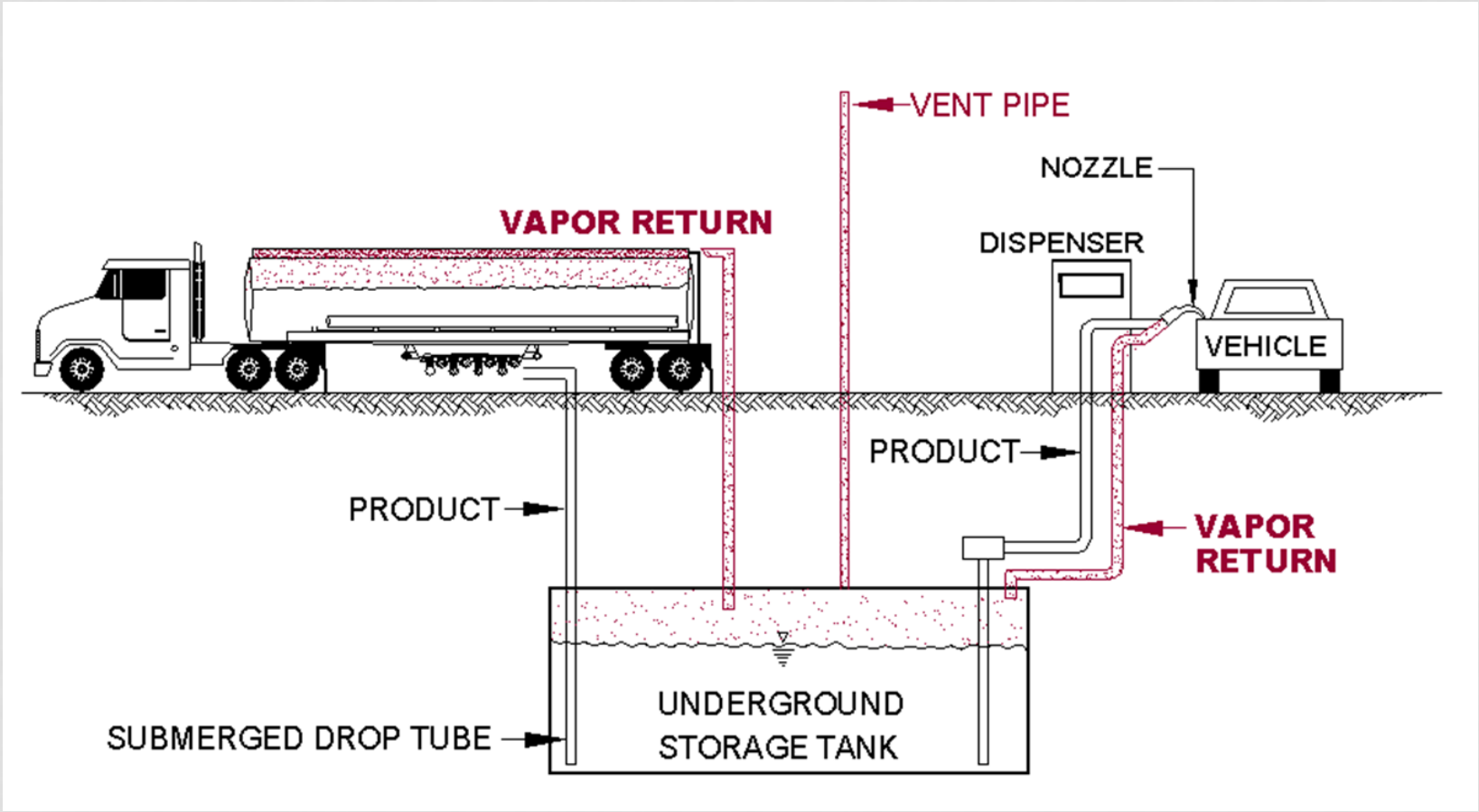
Stakeholder Meeting | June 24, 2016 | NJDEP

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