



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Air Pollution Control Program Vapor Recovery Stakeholder Meeting

Kyra Moore

August 6, 2015

History - Stage II

- St. Louis is a nonattainment area for Ozone
 - Not meeting federal standards
 - Requires area to implement strategies and controls to reach attainment
- Stage II implemented in 1980s as a control strategy for the St. Louis area to reduce volatile organic compound emissions, a precursor to ground level ozone
- Stage II equipment captures VOC emissions present during refueling

Onboard Refueling Vapor Recovery

- “ORVR”
- EPA required phase in of onboard refueling vapor recovery or ORVR in the motor vehicle fleet starting in mid 1990’s
- This equipment, in your automobile, also captures VOC emissions during refueling
- Present in all 2006 and newer vehicles
 - Also present in many produced after 1996

How and Why We Got Here

- May 2012 – EPA finalized the “Widespread Use Rule” stating that ORVR systems are in widespread use nationally
- States allowed to phase out Stage II equipment that captures vapor recovery at the gas pump
- States must demonstrate that the removal of the equipment will not affect air quality

Normal Process

- **3-5 years before decommissioning start**
- EPA finalizes a rule
- State amends/revises state rule - 5.220
- Rule goes through public comment/hearing process ~18 months
- State submits rule revision and change to State Implementation Plan to EPA (plan allows Department to act as the authority of the Clean Air Act in the state)
- EPA approves SIP ~1 – 3 year process

Missouri Process – What We Did

- **Allowed decommissioning of Stage II equipment early**
- New facilities started late in 2012. All facilities allowed as of March 15, 2013
- Worked closely with EPA to develop a draft plan and demonstration to show no negative impact

Why This Different Approach?

- Would have faced situation where new stations would have to install Stage II equipment for a rule that we knew would not exist in near future
- Common Sense
- May have caused confusion and unintentional non-compliance

REVISED STATE VAPOR RECOVERY RULE – 5.220

- Came into effect December 1, 2014
- Stage II vapor recovery requirement removed
- Decommissioning deadline December 31, 2015
- Requirement for Stage I vapor recovery systems with minimum 98% collection efficiency **unchanged**

98% Collection Efficiency Requirement

- Not a new requirement, has been in the rule for several years
- EPA did not allow removal of this requirement
- EPA requires the state to verify compliance with this requirement



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QUESTIONS SO FAR?

STAGE II DECOMMISSIONING

Richard Swartz

Darcy Bybee

STAGE II DECOMMISSIONING

- Stage II vapor recovery decommissioning deadline is December 31, 2015
- 83% of facilities have completed decommissioning

DECOMMISSIONING PROCESS

- Apply for a construction permit to decommission
- Decommission Stage II equipment
- Apply for an operating permit
- Conduct pressure decay and pressure/vacuum valve testing

EQUIPMENT MAINTENANCE

- For emissions, health and safety reasons, Stage II equipment still in place must be maintained until it is **completely** removed
- Department staff will continue to conduct inspections
- Don't remove any part of the Stage II system without first obtaining a construction permit



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QUESTIONS ABOUT STAGE II DECOMMISSIONING?



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STAGE I 98% COLLECTION EFFICIENCY REQUIREMENT

Richard Swartz

Darcy Bybee

STAGE I REQUIREMENTS

- **98% Collection efficiency is not a new requirement**
- Stage I vapor recovery equipment must be CARB certified and have a collection efficiency of at least 98%
- Non-CARB certified equipment may be used if a request is approved by the director; still must have a collection efficiency of at least 98%

98% COLLECTION EFFICIENCY COMPLIANCE RATE

- Compliance rate unknown at this time, assuming between 5 & 10 percent
- We believe this necessitates a phased in approach to allow GDFs to replace stage I equipment that does not meet rule requirements
- Phased in approach works best for state and GDFs

PROPOSED PHASE IN APPROACH

- This is currently a **PROPOSED** phase in approach
- We would like feedback regarding the merits and deficiencies of this proposed approach, from your perspective

PROPOSED PHASE IN APPROACH

FIRST STEP – New & Replacement Equipment:

- Currently all stage I vapor recovery components at new Gasoline Dispensing Facilities (GDF) must be compliant with the rule.
- All stage I vapor recovery components specified for replacement at an existing GDF in a construction permit application must be compliant with the rule, other than pressure vacuum (P/V) valves.

PROPOSED PHASE IN APPROACH

P/V valves currently allowed for use (2015):

- OPW 523-MOPETP approved
- Husky 4885-MOPETP approved
- Husky 5885-CARB/EVR certified
- Franklin Fueling Systems PV-ZERO-CARB/EVR certified

PROPOSED PHASE IN APPROACH

SECOND STEP – Phase in P/V Valve at Existing GDF:

- **Starting January 2, 2016**, all stage I vapor recovery components specified for replacement in a construction permit application must be compliant with the rule, including P/V valves.
- In addition, GDFs applying to renew their operating permit must install a P/V valve compliant with the rule.

PROPOSED PHASE IN APPROACH

P/V valves allowed for use in 2016:

- ~~OPW 523-MOPETP approved~~
- ~~Husky 4885-MOPETP approved~~
- Husky 5885-CARB/EVR certified
- Franklin Fueling Systems PV-ZERO-CARB/EVR certified
- Other P/V valves may be used upon CARB approval or per approval by the APCP Director

***PROPOSED* PHASE IN APPROACH**

THIRD STEP - Phase in upgrades during routine Operating Permit renewals (in conjunction with construction or no construction):

- Starting January 2, 2017, all stage I vapor recovery components must be compliant with the rule for any GDF that applies for a construction permit and/or operating permit.**

PROPOSED PHASE IN APPROACH

**It is important to note that the Hazardous Waste Program (HWP) is revising their underground storage tank regulations. In order to be in compliance with this HWP rule revision, some GDFs in the non-attainment area may be required to replace some components of their stage I vapor recovery system, for example drop fill tubes or spill buckets. As a program, we are committed to coordinating with the HWP on these issues. When it is practical, and makes sense, the requirement to replace existing stage I vapor recovery equipment should be coordinated with the requirement to replace other equipment as required by the HWP revised rule. In these cases, deviation from the January 2, 2017, deadline may be appropriate. As always, this should be considered on a case by case basis. In addition, staff should encourage upgrades to 98% efficient equipment during other construction activity.

PROPOSED PHASE IN APPROACH

FOURTH STEP - Final Compliance Date (~4+ years from present):

- **By December 31, 2019**, all stage I vapor recovery equipment in place at GDFs subject to this rule must be compliant with the rule, i.e. must have stage I vapor recovery equipment installed that has a collection efficiency of at least 98%.

PROPOSED PHASE IN APPROACH

It is important to note that this phase in approach is intended to apply only to existing GDFs. Any newly constructed GDF must be compliant with the revised rule upon construction.

LIST OF STAGE I EQUIPMENT

- Spill container
- Replacement Drain valve/plug kit
- Pressure/Vacuum vent
- Product adaptor
- Vapor adaptor
- Drop tube
- Drop tube riser clamp

LIST OF STAGE I EQUIPMENT

- Jack screw kit
- Face seal adaptor
- Bladder plug
- Riser support bracket
- Riser seal
- Dust caps

LIST OF STAGE I EQUIPMENT

For CARB approved systems, if the following components are installed or required by other programs they must be a specific model #, we of course can approve non-CARB components:

- Overfill prevention device
- Tank bottom protector
- Tank gauge port components
- Fuel lock
- Riser offset

PROPOSED PHASE IN APPROACH

- Did we mention that this is our proposed phase in approach?
- Now we'd like to hear your thoughts regarding this approach as drafted

Division of Environmental Quality Director: Leanne Tippett Mosby

Date: August 6, 2015

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.