

Proposed Final Report: Gas Vapor Regulations

The Legislature's Decentralized Approach Neither Requires nor Produces Consistency, and Current Regulations May Be Requiring Outdated Technology

Zane Potter, JLARC Staff

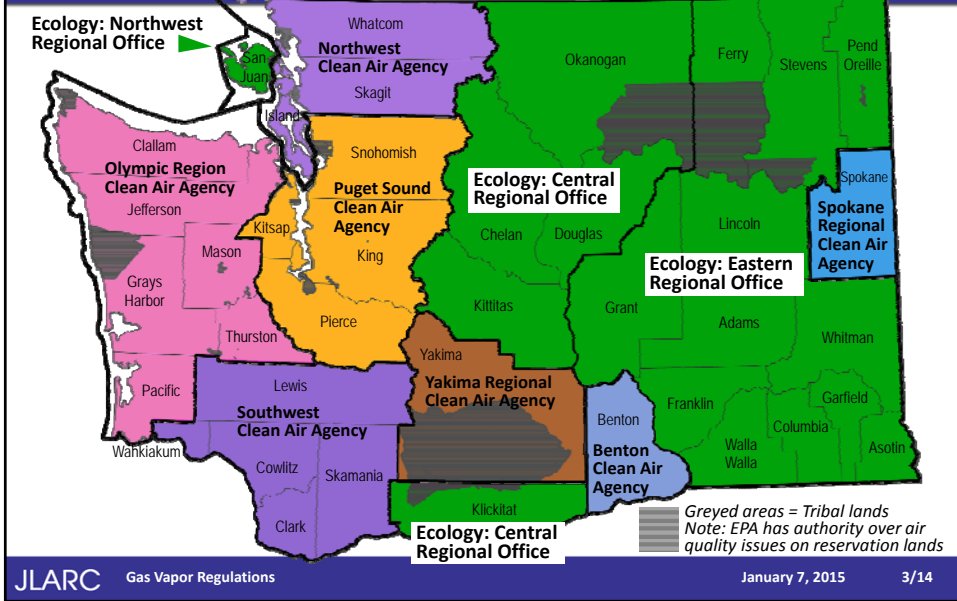
Staff to the Joint Legislative Audit & Review Committee

January 7, 2015

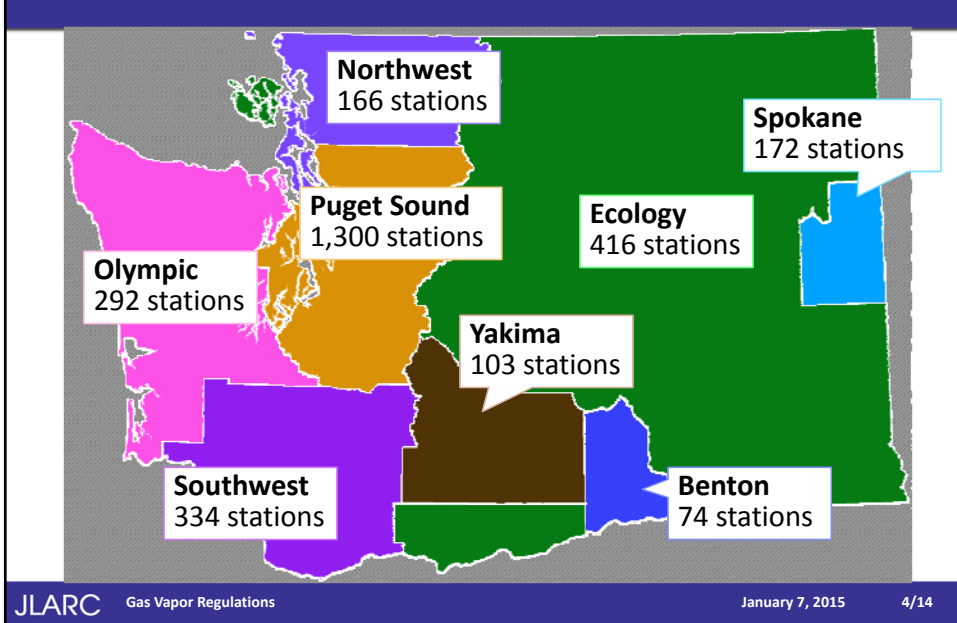
Federal Clean Air Act Regulates Air Emissions in the United States

- Gasoline vapors are a source of ground-level ozone (smog) which poses a risk to human health and the environment
- 
- Environmental Protection Agency is responsible for establishing air quality standards and regulations
 - Federal Act gives states flexibility in how to organize themselves to meet EPA's standards and regulations

Washington's Clean Air Act Allows Decentralized Approach to Regulating Air Quality



Washington Has Approximately 2,800 Gas Stations



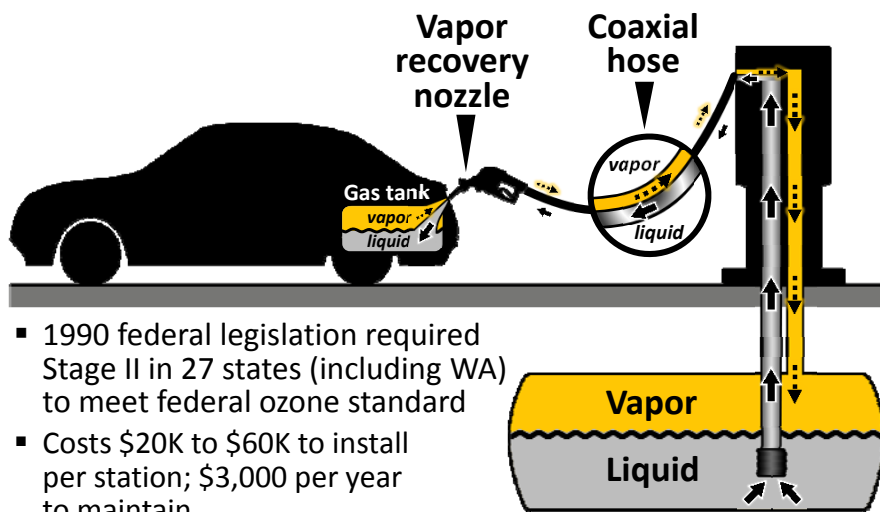
Key Points From Report

- Agency fees, methodologies used to determine agency fees and inspection frequency varies
- 25 other states use a decentralized approach to regulating air quality
- Washington's current regulations may be requiring outdated technology that may increase emissions

Legislative Auditor recommends completing an analysis to avoid increasing emissions

Agencies: Concur OFM: Did not provide a response

Stage II Vapor Recovery Systems Capture Gasoline Vapors During the Refueling of Motor Vehicles



- 1990 federal legislation required Stage II in 27 states (including WA) to meet federal ozone standard
- Costs \$20K to \$60K to install per station; \$3,000 per year to maintain

Stage II Systems Were Intended to Help Regions Meet the Federal Ozone Standard



Three agencies require Stage II systems at about 1,300 gas stations across seven counties:

Puget Sound Clean Air Agency

- Snohomish
- King
- Kitsap
- Pierce

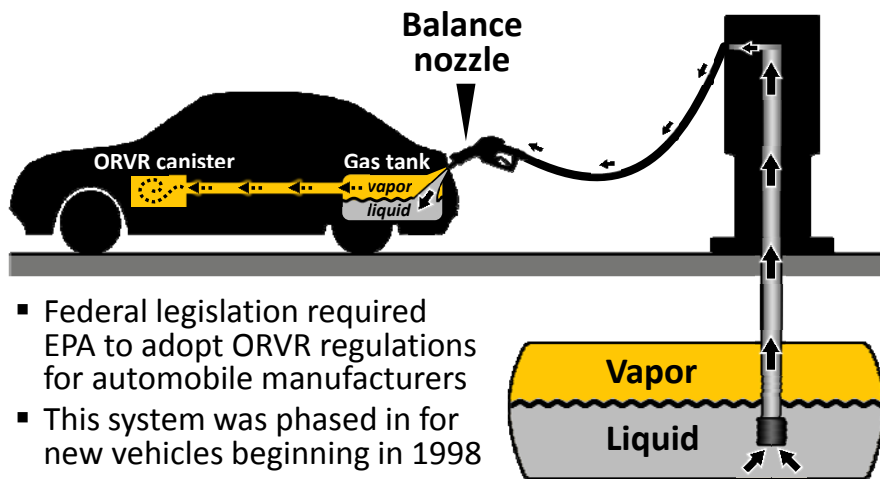
Ecology

- Thurston
- Cowlitz

Southwest Clean Air Agency

- Clark

Onboard Refueling Vapor Recover (ORVR) Systems Also Capture Gasoline Vapor During Refueling of Vehicles

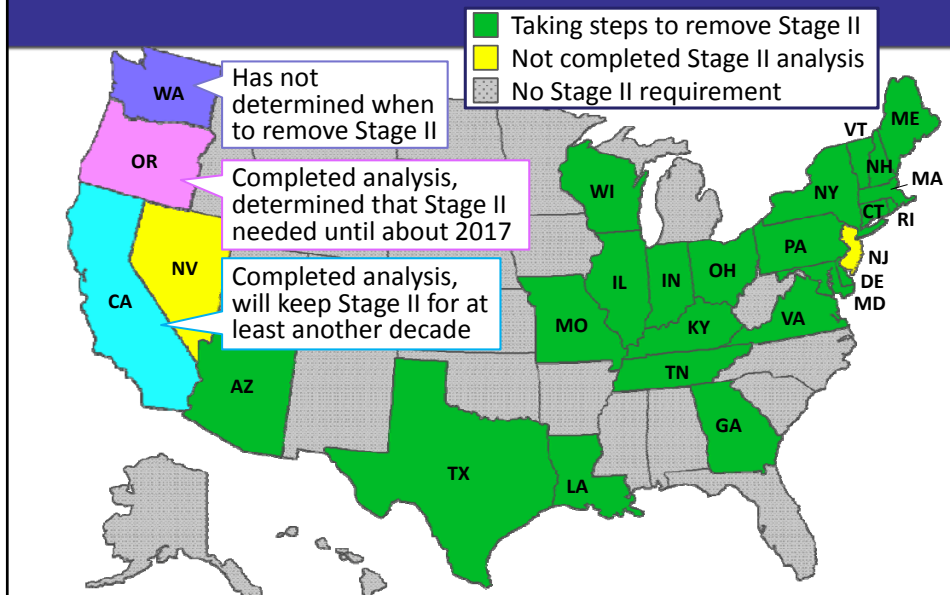


- Federal legislation required EPA to adopt ORVR regulations for automobile manufacturers
- This system was phased in for new vehicles beginning in 1998

Some Stage II Systems Can Increase Emissions Because of New Technology

- In 2012 EPA no longer required stage II vapor recovery systems to meet federal the ozone standard
 - ♦ Stage II systems have become largely redundant because more cars have ORVR
 - ♦ Limited compatibility between ORVR systems installed on cars and some Stage II systems may increase emissions
- EPA determination allowed, but did not require, states to remove Stage II

Other States Taking Steps to Remove Stage II



Ecology and Local Agencies Have Not Determined When to Remove Stage II

- Ecology has yet to undertake emissions analysis
- Southwest completed an analysis in 2012, but agency staff indicated that it was not shared with Board or made publicly available
- Puget Sound completed two analyses; however, some factors are inconsistent with EPA guidance

JLARC staff estimated that Stage II systems could begin to increase emissions as soon as 2020 in Southwest and Puget Sound

Legislative Auditor Recommendation: Complete Emissions Analysis

The Department of Ecology and the local clean air agencies should estimate and publish when Stage II requirements will begin to increase emissions

This analysis should determine whether keeping Stage II systems helps the regions meet EPA's current ozone standard and the costs and cost effectiveness associated with keeping these systems

Agencies: Concur OFM: Did not provide a response

Legislative Auditor's Comment on Agencies' Response

- There may be reasons to keep Stage II requirements for a limited number of gas stations in WA
- The analyses conducted by Puget Sound Clean Air Agency had key shortcomings which were not acknowledged in the agencies' response to the recommendation
- Moving forward, Legislative Auditor urges any future analyses include factors that are consistent with EPA guidance and include cost considerations

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