

# Air Quality Overview

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# Overview

- Tier 3 Motor Vehicle Emission and Fuel Standards
- Motor Vehicle Emissions Simulator (MOVES)
- Ozone Standard Review



# What is Tier 3?

- Systems approach to reducing motor vehicle pollution: more stringent vehicle standards enabled by gasoline sulfur control
- Creates a harmonized vehicle program
  - Enables auto industry to produce and sell one vehicle nationwide
  - Coordinated with California Low Emissions Vehicle program and Light-duty Greenhouse Gas standards
- Has immediate health and air quality benefits
  - Helps attain and maintain ozone and PM NAAQS
  - Reduces pollution near roads where more than 50 million people live, work, or go to school
- More information on the proposed rule:  
[www.epa.gov/otaq/tier3.htm](http://www.epa.gov/otaq/tier3.htm)



# Tier 3 Fuel and Vehicle Standards

- Fuel Standards:
  - Lower the average sulfur standard from 30 to 10 ppm starting January 1, 2017
    - Tier 3 vehicle standards not achievable without lower sulfur
    - Sulfur at current levels degrades the performance of vehicle catalytic converters
    - Lower sulfur provides immediate reductions (NOx & VOC emissions) in the existing fleet
    - CA is already at 10 ppm sulfur on average, and Europe and Japan have a 10 ppm cap
- Vehicle Standards:
  - Phase in between 2017 and 2025
  - Tighter VOC & NOx tailpipe standards -- 80% reduction from today's fleet average
  - Tighter PM tailpipe standard -- 70% reduction in per-vehicle standard
  - Evaporative emissions standards – approx 50% reduction from existing standards
  - Revised certification test fuel to include ethanol to better reflect in-use gasoline expected in 2017



# Tier 3 Emission Impacts

## National On-Road Inventory Reductions

	2017		2030	
	Tons	Percent	Tons	Percent
NOx	284,000	8	525,000	28
VOC	45,000	3	226,000	23
PM 2.5	NA	NA	7,500	10
CO	747,000	4	5,765,000	30
Benzene	1,625	4	8,581	36
Total air toxics	15,000	3	90,000	23

- Emission reductions will continue to grow beyond 2030 as more of the fleet continues to turn over to Tier 3 vehicles



# MOtor Vehicle Emission Simulator (MOVES)

- A revised version of MOVES, that includes Tier 3, would be released shortly after Tier 3 is finalized.



# Review of the National Ambient Air Quality Standards

- Section 108 and 109 of the Clean Air Act
  - Establish and review the NAAQS
  - Clean Air Scientific Advisory Committee (CASAC)
- Planning Phase: integrated review plan
- Integrated Science Assessment (ISA)
- Risk/Exposure Assessment (REA)
- Policy Assessment (PA)
- Rulemaking
  - Proposed rule
  - Final rule



# Review of the 2008 Ozone Standard

- Final ISA February 2013
- 1<sup>st</sup> drafts REA and PA in August 2012
- 2<sup>nd</sup> drafts by December 2013
  - Comments/discussion in March
- Final REA and PA by Summer 2014
- Proposed decisions by December 2014
- Final decisions by Fall 2015
- [www.epa.gov/groundlevelozone/](http://www.epa.gov/groundlevelozone/)



# 2008 Ozone Standard - Petitions

- D.C. Circuit upheld the primary standard but remanded the secondary standard for further explanation or reconsideration.
- EPA refers to both the primary and secondary NAAQS as “the 2008 ozone NAAQS.”
- A review of the secondary standard is already part of the current review process.



# For More Information

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# New Source Performance Standards (NSPS)

Crude Oil & Natural Gas Production, Transmission, and  
Distribution  
(Subpart OOOO)

# Background for NSPS Subpart 0000

- NSPS Update for the Oil & Natural Gas Sector
  - Affected Facilities Constructed Since August 23, 2011
    - Inclusive of Natural Gas Well Completion, Compressors, Well Site and other Pneumatic Controllers, Well Site and other Storage Vessels, Small Glycol Dehydrators at Well Production Pads, and Sweetening Units at Gas Processing Plants
  - Addresses Volatile Organic Compounds (VOCs) along with several toxic air pollutants, including benzene, and achieves substantial methane reductions as a co-benefit
- Rule Publication in the Federal Register (FR)
  - Proposal on 08/23/2011 (76 FR 52738)
  - Final Rule on 08/16/2012 (77 FR 49490)
  - Some Split Applicability with NSPS Subparts KKK & LLL
- Petitions for Reconsideration Received After Rule Finalized

# Status of NSPS Subpart 0000

- Reconsideration of Certain Provisions Final Rule Signed on 08/02/2013 and *Pending Publication in the FR*
- Primarily involves **Storage Tank** provisions
  - Clarifies Notification & Compliance Dates
  - Ensures Control of All Storage Vessel “Affected Facilities” constructed since August 23, 2011, using a phase-in approach.
  - Updates Key Definitions
- EPA Still Reviewing Provisions Related to **Other Process Operations** in Petitions for Reconsideration Received

# Oil and Natural Gas Operations

Oil and natural gas systems encompass wells, gas gathering and processing facilities, storage, and transmission and distribution pipelines. These components are all important aspects of the natural gas cycle — the process of getting natural gas out of the ground and to the end user.

## Production & Processing

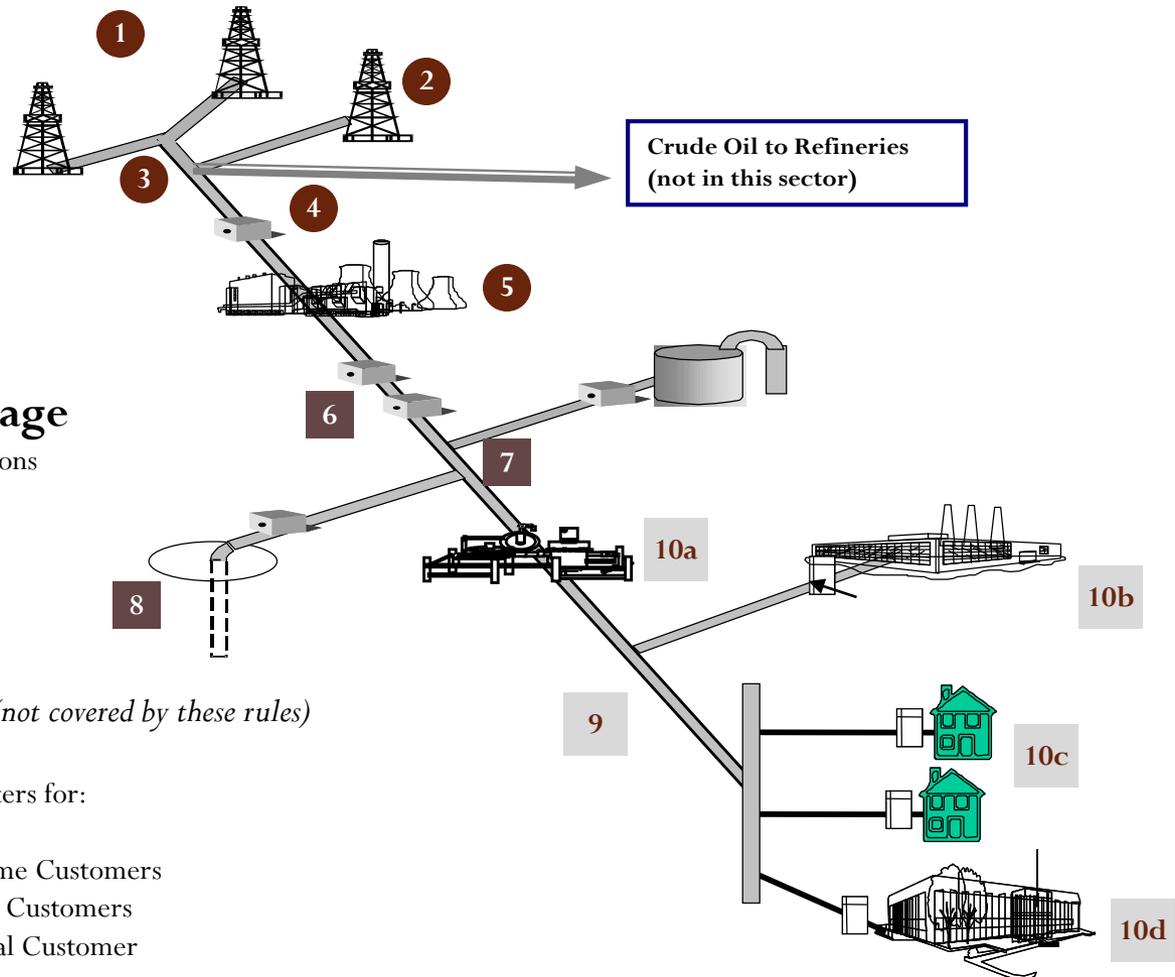
1. Drilling and Well Completion
2. Producing Wells
3. Gathering Lines
4. Gathering and Boosting Compressors
5. Gas Processing Plant

## Transmission & Storage

6. Transmission Compressor Stations
7. Transmission Pipeline
8. Underground Storage

## Distribution *(not covered by these rules)*

9. Distribution Mains
10. Regulators and Meters for:
  - a. City Gate
  - b. Large Volume Customers
  - c. Residential Customers
  - d. Commercial Customer



# Contacts for Further Info

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