Oil and Gas NSPS and NESHAP

American Petroleum Institute

Presentation to:

Office of Management and Budget

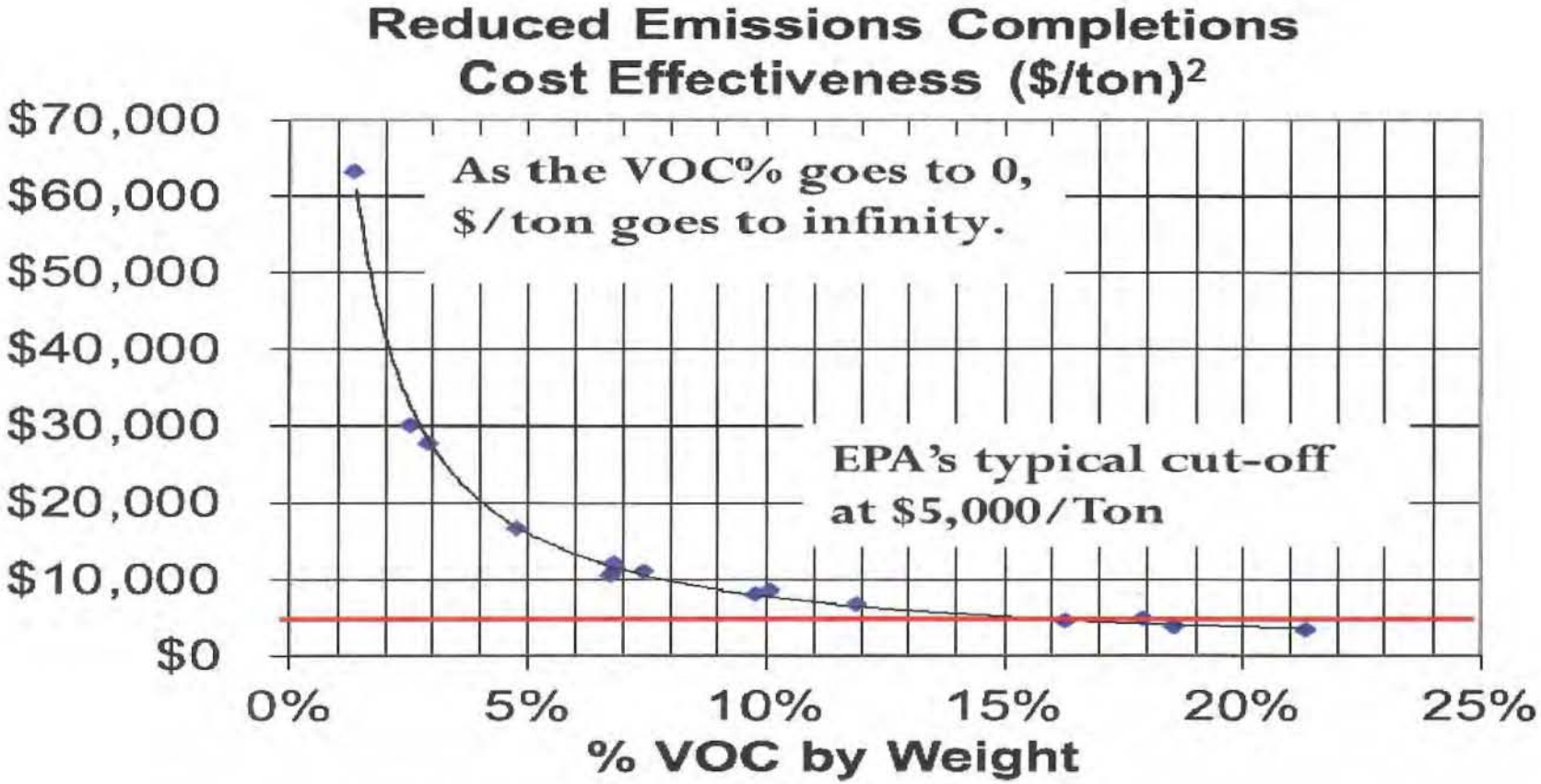
March 22, 2012

Critical Recommendations

See Slide	
4	The NSPS should apply to sources (including reduced emissions completions) that have **≥10% VOC content by weight.**[1,2] ▪ Controls are not cost effective when VOC content is < 10 %. ▪ Without a VOC threshold, state permitting burden dramatically increases.
5, 6, 7	**Allow a phase-in period and limit the applicability** to avoid a sudden reduction in oil and gas development for ▪ Storage Vessels – 3 years/12 TPY ▪ Reduced Emissions Completions – 2 years/10 % VOC ▪ Pneumatic Controllers – 2 years/high bleed controllers
8	**Storage vessels** should be controlled only if the VOC emission are **>12 TPY** and are **permanent**. **Ninety days** should be allowed to evaluate emissions and install controls. Controls should be allowed to be **removed** when emissions decline **below 8 TPY** due to production decline.
9	**Reduced emission completions** requirements should be **less prescriptive** and limited to circumstances that are **cost-effective and technically feasible.**
10	EPA should **reduce the regulatory burden** of the notification, recordkeeping, reporting, and monitoring requirements.

SUPPORTING INFORMATION

≥10% VOC Threshold



- EPA proposed requirements to reduce VOCs from completions of gas wells following hydraulic fracturing with **no VOC content threshold for applicability.**[2]
- EPA should establish a VOC threshold of **10% VOC content by weight** for all sources in the rule to assure the NSPS is cost effective per the Clean Air Act[1]

Phase-in Period Needed

Phase-in periods needed for the following sources to avoid the level of unconventional natural gas drilling to be reduced up to 50% in the near term[3]:

- **Storage Vessels - 3 years** -To design, manufacture and certify sufficient number of control devices.[4,5]
- **Reduced Emissions Completions - 2 years** - To manufacture the necessary equipment and train personnel to safely conduct this operation.[2,3,6] (Recommendation based on reduction in applicability to only ≥10% VOC)
- **Pneumatic Controllers - 2 years/high bleed controllers** - For manufacturers and industry to determine the status of current equipment (hundreds of thousands) and allow manufacturers time to manufacture equipment and develop specifications or guarantees for compliance.[7]

NSPS triggers permitting in several states for wells and pneumatics. Phase-in will provide time to adapt to sudden permitting burden.

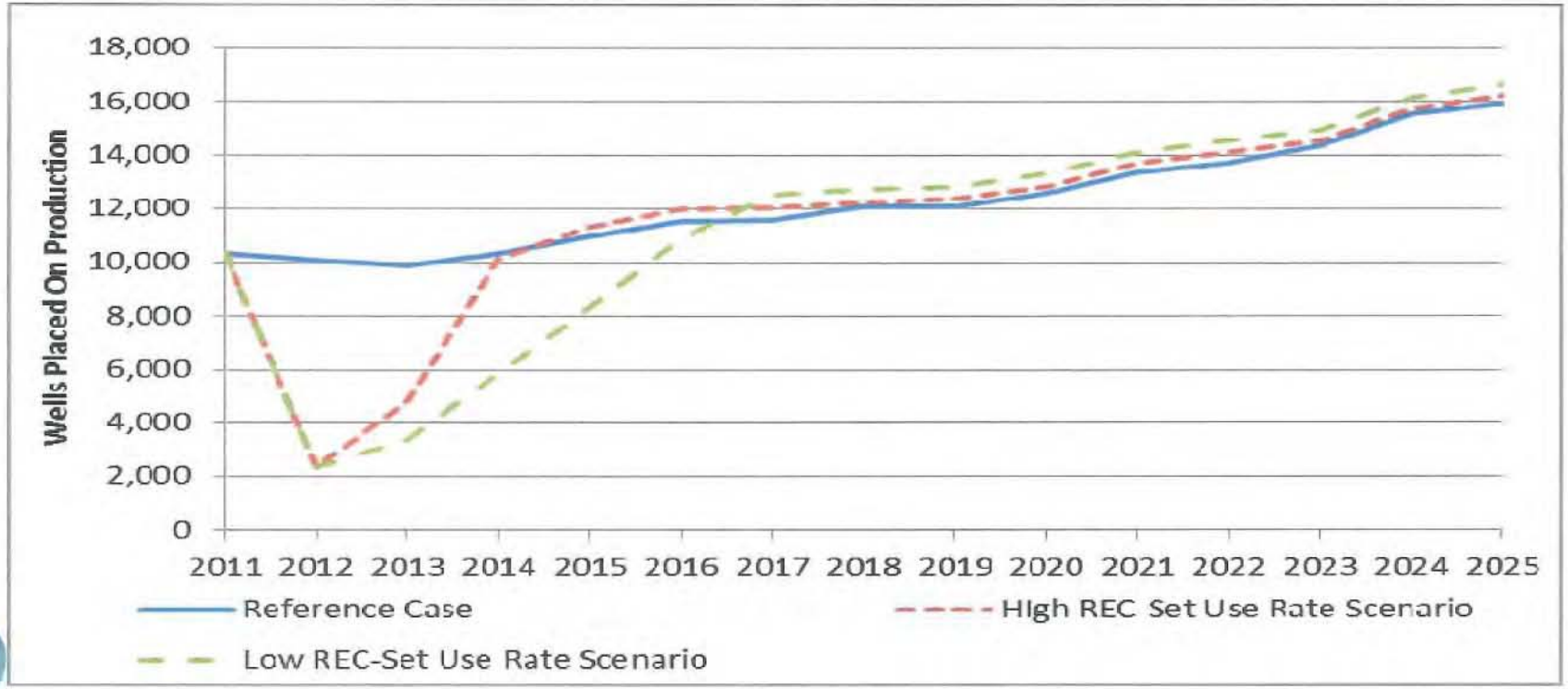
Storage Vessel Control Availability[4]

- API surveyed smokeless combustion chamber manufactures:
  - Found they can currently **manufacture only 3680 combustors/year.**
  - **~20, 000 combustors/year are needed assuming a 12 TPY threshold**.
  - Companies included John Zinc, JW Williams, Pesco, TCI, Cameron, and Leed.
  - Survey did not verify if these combustors could meet the requirements of the proposed regulation.
  - More than likely, the design would need to be changed and/or operating throughput limitations established to meet the regulatory requirements.
- **Only 20% of the combustors that will be needed each year can currently be manufactured!**
- API prefers manufacturers certify the combustors versus initial testing and retesting every five years in the field.
- Companies already facing shortage in control equipment.

Impacts of First 4 Years (2012-2015) of RECs on US Unconventional Natural Gas Wells without Phase-in Period[3]

- **Drilling reduced by 31% to 52%** or reduction of 12,700 to 21,400 wells.
- **5.8 to 7.0 quadrillion Btu** (Quads) of natural gas would not be developed and produced by 2015, a 9% to 11% reduction.
- **1.0 to 1.8 billion barrels of liquids** would not be developed and produced by 2015, a 21% to 37% reduction.
- **Total royalties of $7.0 to $8.5 billion** would not be paid.
- **State revenues** from severance taxes amounting to **$1.9 to $2.3 billion** would be delayed.

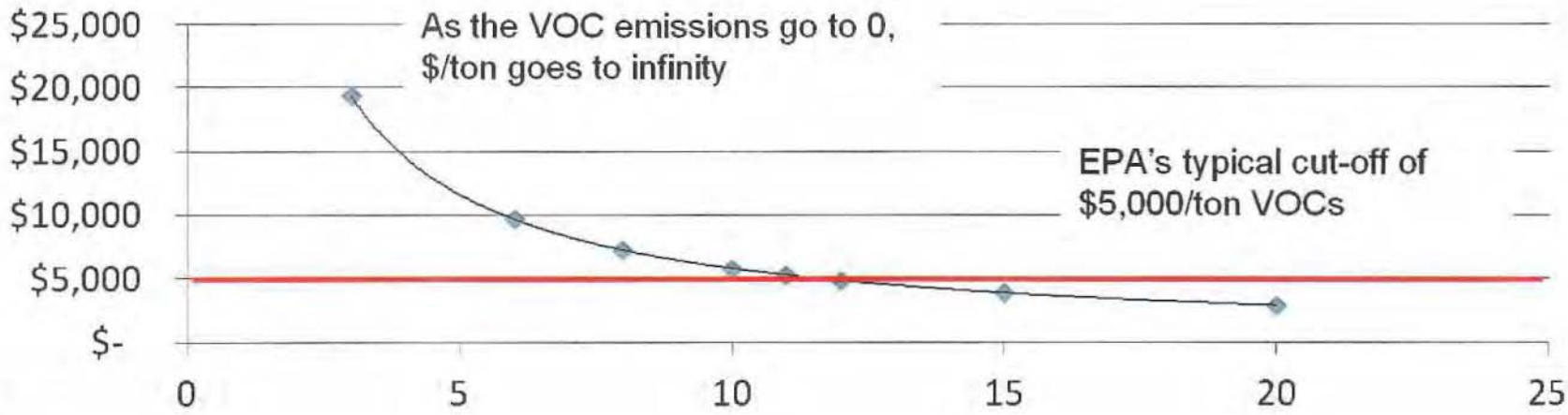
Impacts of REC Requirements on US Unconventional Drilling[3]



Storage Vessel Applicability[9,10]

- Applicability to storage vessels should be limited to:
  - Emissions ≥**12 TPY VOC**.
  - Permanent installations (i.e., ≤ **180 days** is temporary)
- EPA should **allow 90 days** after the first date of production to:
  - Determine the production rate, composition, and pressure,
  - Calculate the emissions, and
  - Install the controls
- EPA should allow for **controls to be removed** once emission **decline below 8 TPY VOC** due to production decline.

Storage Vessel Control Cost Effectiveness ($/ton VOC)[10]



Reduced Emission Completions Applicability and Requirements [2, 11]

- EPA should allow more flexibility and not prescribe the equipment required. (Sec. 15.2)
- Applicability should be technically feasible:
  - When the gas can physically be controlled or recovered (Sec. 15.3):
    - Must have natural gas gathering line and production equipment.
    - Must have adequate reservoir pressure to overcome pipeline pressure
    - Must be able to flare in many circumstances.
    - Must still vent – fire hazard, gas not combustible, state, local, or other requirements

Reduce Administrative Burden[8]

- For REC, require a monthly notification of the completions for the month with the tentative date of completions and a contact number for latest schedule. [2] (Sec. 15.7)
- The regulatory burden of the notifications, recordkeeping, and reporting should instead:
  - Be designed to fit operations in remote, dispersed, and unmanned facilities common to the O&G industry by:
    - Not referencing the Subpart A, General Provision requirements
    - Tailoring to industry by having requirements written in Subpart OOOO
    - Emphasizing recordkeeping over notifications and reporting
    - Limiting to data of most interest to EPA or state agencies
    - Not referencing the NESHAP rule
  - Have performance test methods that:
    - Are contained within NSPS OOOO and do not reference the NESHAP rule
    - Use concentration based calculations
    - Do not include technically infeasible flow measurements (e.g., storage vessel flow meters)
- The proposed rule does not adequately account for the costs associated with these compliance assurance requirements.

References

1 API Comments, November 30, 2011 – Executive Summary (ES) point 1 and section 5.1.

2 Supplemental Comment Letter- VOC Content Threshold for Reduced Emissions Completions, Submitted March 2, 2012

3 Estimate of Impact of EPA Proposals to Reduce Air Emissions from Hydraulic Fracturing Operations, By Advanced Resources International, February 2012

4 Future Available Best System of Emission Reduction (BSER) for Tanks, Submitted to David Cozzie and Bruce Moore by email on February 1, 2012

5 API Comments – ES points 8 and 10, and section 7.3

6 API Comments – ES point 5 and sections 7.4 and 15.4.

7 API Comments – Section 17.10

8 API Comments – ES point 4 and section 8.

9 Phased Emission Control Process for Production Storage Vessels, Submitted to David Cozzie and Bruce Moore by email on February 1, 2012

10 API Comments – Sections 16.6 and 16.7.

11 API Comments – Section 15