

Proposed NSPS and NESHAP Rules for Oil and Gas Production: Change is Inevitable

Presented by:

Thomas I. Sullivan

Zephyr Environmental Corporation

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Today's Agenda

1. Recap: EPA's timeline for this rulemaking
2. Overview of Proposed NSPS
3. Major areas of concern or confusion
4. Overview of Proposed NESHAPs
5. What's Next?

Recap: EPA Timeline for new O&G NSPS and MACT

- 2009: WildEarth Guardians and San Juan Citizens Alliance filed deadline suit for failure to conduct required reviews of the two NSPS (1985) and risk and technology reviews of the NESHAP rules (1999)
- February 4, 2010 - Consent decree entered
- **January 31, 2011 - Deadline for proposed action**
- August 23, 2011 – Proposed rule is published in the Federal Register
- **November 30, 2011 – Original deadline for final action**
- November 30, 2011 – Final public comment period closed
- March 2012 ? – Final Rule promulgation forecast by EPA

Oil and Natural Gas Sector NSPS Overview

- Current New Source Performance Standards (NSPS) Subparts LLL and KKK, cover sulfur dioxide (SO₂) and volatile organic compounds (VOC) emissions from onshore natural gas processing plants (NGPP)
- Proposed rule would replace both NSPS Subparts KKK and LLL and create Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution – including NGPPs
- The proposed rules would extend beyond the gas processing sector to apply “best system of emissions reductions” (BSER) for emissions of VOC and SO₂ to all hydraulically fractured wells, compressors, pneumatic controllers, and condensate and crude oil storage vessels.

Oil and Natural Gas Sector NSPS Overview (cont)

- Expands rule coverage from gas treatment plants upstream to wellhead operations on wells that are completed using hydraulic fracturing
- Requires “green completions” to reduce potential emissions from fracking operations
- Applies Subpart VVa leak detection and repair standards to onshore NG processing plants
- Additional control of sweetening units at Onshore NGPPs

Oil and Natural Gas Sector NSPS Overview (cont)

- New standards for centrifugal compressors seal replacement with dry seal system
- New reciprocating compressor rod packing replacement required every 26,000 hrs of operation
- Standards set for pneumatic controllers
 - Zero bleed at onshore natural gas processing plants
 - Low bleed (<6 scfh) everywhere else
- Storage vessels require control based on oil (20 bbl/day) or condensate (1 bbl/day) throughput

Major areas of concern or confusion

Narrow definition of source category

- Standard could apply to many small sources

- A single natural gas well
- A single centrifugal or reciprocating compressor
- A single pneumatic controller
- A single storage vessel
- A single compressor in wet gas service

Major areas of concern or confusion (cont)

New definitions

- Natural Gas – used as a surrogate for VOC when many natural gas streams have very low VOC content
- Compressor “affected facility” is contrary to plain language of Federal CAA for a new source
- “Commenced construction” of compressors defined as installation at a facility, not date of manufacture

Major areas of concern or confusion (cont)

Pneumatic Controllers

- Definition of affected source does not include an “in VOC service” (10 wt% VOC) qualifier
- The number of sources that would be pulled into the NSPS rule is huge and carries significant recordkeeping and reporting requirements
- Descriptions of pneumatic controllers is vague and does not reflect common usage in industry
- “Low” bleed threshold is arbitrary, taken from Gas Star program, and does not reflect operational concerns
- Industry estimates greater than 20,000 new affected controllers annually

Major areas of concern or confusion (cont)

Storage Tanks

- Definition of affected source uses product throughput in place of an emission threshold, does not reflect real world variability of product
- A single remote tank can be subject to MACT level controls
- Control, monitoring, recordkeeping and reporting requirements are excessive for mostly small remote unmanned sources
- Affected Tanks included in EPA Regulatory Impacts Analysis appears low, estimated at 304 nationwide, industry expects nearly all new tanks would be affected

Major areas of concern or confusion (cont)

Wellhead operations

- Control equipment and/or experienced operators are not available to meet requirements at all well operations
- Affected activities written broadly and currently includes actions with minor or zero emission potential
- Rule prescribes control equipment rather than a level of emission reduction
- Language of rule does not address operational and safety constraints that are present at well sites

Major areas of concern or confusion (cont)

Onshore Natural Gas Processing Plants

- Using SOCFI Subpart VVa LDAR levels is excessive for facilities with less hazardous products

General Concerns

- The notification, monitoring, recordkeeping, performance testing, and reporting requirements are very complex for such a large number of small widely distributed sources
- Initial applicability date of August 23, 2011 unrealistic for actual compliance – Anyone keeping records as rule proposed since August?
- Initial compliance deadline, currently the publication date of the final rule, does not allow for any ramp up time

Oil and Natural Gas Sector NESHAP Overview

- Existing NESHAP HH: Oil and Natural Gas Production Source Category and HHH: Natural Gas Storage and Transmission Source category are both revised in this rulemaking
- Would regulate “small” dehydrators at major sites
 - <85,000 scmd and <0.9 Mg/year Benzene emissions at a production site
 - <283,000 scmd and <0.9 Mg/year Benzene emissions at a natural gas storage or transmission facility
- Eliminate the < 1 Mg/yr benzene exclusion for large glycol dehydrators

Oil and Natural Gas Sector NESHAP Overview (cont)

- Apply MACT level control to all storage tanks , currently applies to tanks with potential for flash emission
- Removal of the Startup, Shutdown, and Malfunction (SSM) exemption currently available
- Changes to the PTE calculation method

Oil and Natural Gas Sector NSPS and NESHAP What's Next

- Uncertainty regarding the final rules
 - When will they arrive?
 - Many comments requesting simplified recordkeeping, notifications, and compliance options – some may be accepted
 - Many comments made on pneumatic controllers – could see changes to the affected source definition and/or requirements
 - Applicability and compliance deadlines may be extended?

Thank you!

The screenshot shows the Zephyr Environmental Corporation website. At the top is the Zephyr logo and a navigation menu with links for SERVICES, TRAINING, PUBLICATIONS, NEWS, and ABOUT. Below the navigation are three main service areas: CONSULTING (with a landscape image), TRAINING (with a bird in flight image), and DATA SYSTEMS (with a waterfall image). A left sidebar contains links for LOCATIONS, CONTACT, LINKS, CAREERS, and a HAZMAT ACADEMY logo. The main content area features a large image of an oil pumpjack with the text: "We are Strategic Responsive Insightful INNOVATIVE NIMBLE". To the right of this image is a text block titled "Zephyr Environmental Corporation (Zephyr) is a privately held, full-service environmental, health and safety (EHS) firm offering consulting, training, and data systems services to clients worldwide. Founded in 1994, Zephyr works with most industry sectors in a number of regulatory arenas, specializing in air and water quality, waste management and cleanup issues, incident management, natural resources, and workplace and community safety." Below this is another text block: "Zephyr takes great pride in being a client-focused, solution-oriented service company. Included among our professional staff are chemical, civil, environmental, industrial, and mechanical engineers; certified safety professionals; hydrogeologists; meteorologists; biologists; and environmental scientists." On the right side of the main content area are three sections: "ZEPHYR SPOTLIGHT" with a link to "Check out our newest training course on Authorizing Air Emissions!"; "GET THE LATEST..." with links to "Zephyr Announces New Look & Feel", "Overview of Services", "Latest Issue of Currents", "2011 Open Enrollment Training Schedule", and "Zephyr Alerts Archive"; and "VOTED BEST!" with a testimonial from the 2008 "Best Firms" summit. At the bottom of the page, it says "AUSTIN | HOUSTON | BALTIMORE | DUBAI" and "Zephyr Environmental Corporation | 800.452.5558 | info@zephyrenv.com".

Thomas I. Sullivan, P.E.
Zephyr Environmental Corporation
tsullivan@zephyrenv.com
Phone: (512) 879-6632

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