

EPA Finalizes Technical Amendments to the 2016 New Source Performance Standards for the Oil and Natural Gas Industry: Fact Sheet

Overview of Action

- On August 13, 2020 the U.S. Environmental Protection Agency (EPA) issued final technical amendments to the 2016 New Source Performance Standards (NSPS) for the Oil and Natural Gas Industry, including amendments to the fugitive emissions monitoring requirements in the rule. The final technical amendments will significantly reduce regulatory burden and will save the industry \$100 million in compliance costs each year. The final rule also includes changes to streamline implementation and improves alignment between EPA's rule and existing state programs.
- The amendments address a range of technical and implementation issues in response to administrative petitions for reconsideration and other issues brought to EPA's attention since the 2016 NSPS was issued. These include fugitive emissions requirements, provisions to apply for the use of an alternative means of emission limitation (AMEL), pneumatic pump standards, storage vessel standard applicability determinations, and engineer certifications.
- In a separate action August 13, 2020, EPA issued final policy amendments to the 2012 and 2016 NSPS. The policy amendments remove the transmission and storage segment of the industry from regulation under the NSPS, rescind all emissions limits for sources in that segment, and rescind methane-specific emissions limits for sources in the production and processing segments of the industry (visit <https://go.usa.gov/xfHdX> for a fact sheet about this action). EPA finalized the two rules concurrently to provide clarity to industry and to simplify compliance requirements.
- EPA held a public hearing on the proposed technical amendments and received more than 500,000 written comments. The final Technical Rule will take effect 60 days after it is published in the *Federal Register*.

Net Benefits of the Rules

- The Regulatory Impact Analysis (RIA) estimates that the two rules combined will yield \$750 to \$850 million dollars in net benefits over the period from 2021 to 2030, (7 percent and 3 percent discount rates, respectively) or the annualized equivalent of about \$100 million a year.
- For the technical amendments separately, EPA estimates that net benefits from implementation of the rule will range from \$730 million (7 percent discount rate) to \$880 (3 percent discount rate) from 2021 to 2030, or \$97 to \$100 million a year (7 percent and 3 percent discount rates, respectively).

Summary of Final Technical Amendments

Fugitive Emissions (Leaks) Monitoring

- Fugitive emissions are unintended leaks from equipment and can occur at several points at a well site or compressor station when connections are not properly fitted, hatches are not properly weighted and sealed, or when seals and gaskets start to deteriorate.
- The final technical amendments reduce the frequency of required fugitive emissions monitoring for gathering and boosting compressor stations to twice a year and exempt low-production wells from fugitives monitoring requirements.
- The amendments also significantly streamline the recordkeeping and reporting requirements of the fugitive emissions program. Changes include allowing owners and operators to determine the best means to ensure all components are monitored, rather than having to include a site map and an observation path in the monitoring plan.
- The final amendments also make other changes to requirements for fugitive emissions monitoring and repair, including:
 - *Initial Monitoring Requirements*
 - Well sites and compressor stations that are not located on the Alaska North Slope must conduct initial monitoring within 90 days of startup.
 - Well sites and compressor stations located on the Alaska North Slope that start up between September and March must conduct initial monitoring within six months of startup or by June 30th, whichever is later; well sites and compressor stations that start up between April and August must conduct initial monitoring within 90 days of startup.
 - *Monitoring Frequency – Compressor Stations*
 - Gathering and boosting compressor stations that are not located on the Alaska North Slope are required to monitor twice a year.
 - Gathering and boosting compressor stations located on the Alaska North Slope are required to monitor annually.
 - *Monitoring Frequency – Well Sites*
 - Well sites that are not located on the Alaska North Slope must monitor twice a year, with the exception of low production well sites.
 - Well sites located on the Alaska North Slope must monitor annually.
 - Monitoring may be stopped once all major production and processing equipment is removed from a well site such that it contains only wellheads.

- *Low Production Well Sites*
 - EPA considers a well site to be low production if the total combined oil and natural gas production for the well site is 15 barrels of oil equivalent (boe) per day or less.
 - Low production well sites do not have to conduct fugitive emissions monitoring as long as the total production of the sites remains at or below 15 boe per day on a rolling 12-month average.
- *Schedule for Repairing Leaks*
 - The final amendments update fugitive emissions repair requirements in the NSPS. With those amendments, the repair schedule is:
 - A first attempt at repair must be made within 30 days after the emissions are detected.
 - Final repair must be completed within 30 days of the first attempt at repair. EPA considers a repair complete when a resurvey verifies fugitive emissions are no longer detected.
 - Some repairs are not technically feasible or require a shutdown in order to be completed. Where these repairs are delayed, as allowed by the NSPS, the repair must be completed:
 - During the next scheduled compressor station shutdown for maintenance;
 - During the next scheduled well shutdown or scheduled well shut-in;
 - After a scheduled vent blowdown; or
 - Within two years, whichever is earliest.

Fugitive Emissions Monitoring Requirements and Modifications

- If an existing source is modified, it becomes subject to the Oil and Natural Gas NSPS and is subject to fugitive emissions monitoring requirements.
- *Modifications of a Well Site that is a Separate Tank Battery Surface Site*
 - The 2016 NSPS did not specifically address modifications of a well site that is a separate tank battery surface site. Under the final amendments, a modification at these sites occurs when:
 - Any of the actions identified as modification events for well sites in the 2016 NSPS occurs at an existing separate tank battery surface site;
 - When a well that is modified as described in the 2016 NSPS sends production to an existing separate tank battery surface site; or

- When a well site subject to the fugitive emissions requirements removes all major production and processing equipment such that it becomes a wellhead-only well site and sends production to an existing separate tank battery surface site.
- The final rule does not change the events detailed in the 2016 NSPS that qualify as modifications of fugitive emissions components at a well site or a compressor station.

Alternative Means of Emission Limitations

- An alternative means of emission limitation, or AMEL, allows the use of a different work practice to achieve emissions reductions that are equal to, or greater than, the work practice specified in the NSPS. The final amendments include changes to the AMEL provisions in the rule to streamline the AMEL application process, and to reduce duplication of some state requirements.

Incorporating State Requirements

- The final technical amendments incorporate state fugitive emissions standards for well sites and compressor stations in California, Colorado, Ohio, Pennsylvania and Texas, and for well sites in Utah. EPA has concluded that certain aspects of these state fugitive emissions requirements are at least equivalent to the fugitive emissions monitoring and repair requirements in the NSPS.
- Owners/operators in these states may choose to comply with these alternative standards for individual well sites or compressor stations that are subject to fugitive emissions monitoring and repair requirements in the NSPS, rather than having to comply with two sets of monitoring and repair requirements. This step provides regulatory flexibility and reduces duplicative requirements.
- Owners/operators choosing to use the alternative standards must prepare a monitoring plan, as required by the NSPS, and must monitor all of the components that the NSPS defines as fugitive emissions components.
- To reduce administrative burden, owners/operators in certain states who choose to comply with these alternative standards may keep the records that the state requires and send a copy of the site-specific state report to EPA, rather than keeping two sets of records.
- The amendments also streamline the process to request new alternative emissions standards as state, local, and tribal fugitive emissions programs continue to develop. Any interested person may apply to use alternative emissions standards based on state, local, or tribal programs.

Streamlining Application Requirements for Using Emerging Technologies

- EPA recognizes new technologies that are expected to enter the market could help locate the source of fugitive emissions sooner and at lower costs than the current technologies required in the NSPS.
- The final rule amends the application requirements for requesting the use of an AMEL for monitoring and reducing fugitive emissions from well sites and compressor stations to allow any person to apply.
- Applications for AMELs must include site-specific procedures for ensuring that emission reductions would be continuous. Applicants may supplement field data with test data, modeling analyses, and other documentation, provided that the field data provides information related to seasonal variations.
- EPA has discretion in certain circumstances to allow for broad approval of alternatives and will work with applicants throughout the approval process as appropriate.

Pneumatic Pumps

- Pneumatic pumps use gas pressure to drive fluids. At well sites, pneumatic diaphragm pumps are used to transfer fluids or to circulate glycol “heat trace medium,” which is used to keep pipes and equipment from freezing, for example.
- The final technical amendments expand an existing exemption from control requirements to cover pumps at greenfield sites: an affected pneumatic pump at *any* well site now may be exempt from control requirements if it is technically infeasible to route emissions from the pump to a control device. The amendments allow either a professional engineer or an in-house engineer to certify that this routing is infeasible.
- Separately, the final rule expands the types of monitoring that owners/operators may use to demonstrate that closed vent systems associated with pneumatic pumps are operating with no detectable emissions, as the NSPS requires. Under the final rule, owners/operators may make this demonstration through:
 - an annual inspection using EPA Method 21,
 - monthly audio/visual/olfactory (AVO) monitoring, or
 - optical gas imaging (OGI) monitoring at the frequencies specified for fugitive emissions monitoring.

Engineer Certifications for Closed Vent Systems

- The final amendments allow either a professional engineer or in-house engineer with appropriate knowledge of the closed-vent system design to certify that the system is designed and operated as required (routing all emissions from a storage vessel, pneumatic pump, or compressor to a control device).

Storage Vessels (Tanks)

- The final technical amendments clarify how to calculate potential VOC emissions for individual storage tanks to determine whether standards in the rule apply. The amendments also establish separate criteria for calculating potential VOC emissions from individual storage vessels that are part of a controlled tank battery.
- Sources can calculate the potential VOC emissions for individual tanks in a battery by averaging the emissions from the entire tank battery across the number of storage vessels in the battery only if:
 - a tank battery is subject to legally and practicably enforceable limits; and
 - the permit requires routing vapors through a closed-vent system to a control device that achieves 95 percent control.
- If VOC emissions are greater than 6 tons per year (tpy), an individual storage tank is subject to the NSPS. Likewise, for the controlled tank battery, if the average VOC emissions are greater than 6 tpy, then all storage vessels in that battery are subject to the NSPS.
- The final rule incorporates the option for a storage vessel closed-vent system to be monitored by either monthly AVO monitoring, or OGI monitoring at the frequencies specified for fugitive emissions monitoring.

Other Amendments

Onshore Natural Gas Processing Plants

- The final rule amends the definition of “capital expenditure” by updating the equation used to determine the percent of replacement cost. The Agency is finalizing an alternative approach, based on consumer price indices, that better reflects inflation.
- The rule clarifies that onshore natural gas processing plants must comply with equipment leaks standards as soon as practicable, but no later than 180 days after initial startup of a new, modified or reconstructed process unit. It also exempts equipment in VOC service less than 300 hours per year from monitoring requirements.

Recordkeeping and Reporting

- The amendments require electronic submittal of required performance tests and compliance reports through EPA’s Central Data Exchange using the Compliance and Emissions Data Reporting Interface.

Well Completions

- Rather than requiring a separator to be on site during the entire stage of well completion known as “flowback,” the amendments allow a separator to be located at a nearby centralized facility or well pad, as long as the separator can

be used as soon as it is technically feasible for it to function. The amendments also include slight modifications to the definition of flowback, and simplify recordkeeping and reporting requirements for operators who start production immediately after completing the well.

For More Information

- The final technical amendments and other related information are available at <https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/actions-and-notice-about-oil-and-natural-gas#regactions>.