

SUMMARY OF 2016 REQUIREMENTS FOR PROCESSES AND EQUIPMENT AT NATURAL GAS PROCESSING PLANTS

On May 12, 2016, EPA issued final updates to its New Source Performance Standards (NSPS) for the oil and gas industry to reduce emissions of greenhouse gases – most notably methane – along with smog-forming volatile organic compounds (VOCs). At natural gas processing plants, the updates add requirements for controlling emissions from certain pneumatic pumps. Natural gas processing plants remove impurities from “raw” gas to prepare it for industrial and residential use.

NSPS Requirements for Pneumatic Pumps

- Pneumatic pumps use gas pressure to drive a fluid. 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 rule sets a zero emissions limit for natural gas-driven diaphragm pumps.
 - Electricity is widely available at natural gas processing plants to power diaphragm pumps through the use of compressed air. Pumps driven by electricity or compressed air (also called “instrument air”), and solar-powered pumps are not subject to the requirements of final rule.
- Owners/operators are required to notify EPA when they construct, modify or reconstruct pneumatic diaphragm pumps subject to the rule. This notification is required as part of the owner/operator’s next annual report.
- EPA is not finalizing requirements that owners/operators reduce emissions from natural gas-driven piston pumps, which are used to inject small amounts of chemicals to limit production problems and protect equipment. After analyzing currently available data and considering public comments on the proposed rule, EPA determined that these pumps are low-emitting and should not be subject to the final rule requirements.

Requirements for Equipment Covered by the 2012 Rules

- The final updates to the NSPS add greenhouse gas standards, in the form of limitations on methane, for the equipment and processes that were covered in the 2012 NSPS for VOCs. EPA’s analyses have determined that best systems for reducing methane and VOC emissions are the same. As a result, the requirements in the final rule for compressors (includes centrifugal compressors and reciprocating compressors) and pneumatic controllers at gas processing plants are the same as the requirements in the 2012 NSPS.

- Natural gas processing plants are subject to leak detection and repair requirements established in the 2012 rule. The 2012 rules also included requirements for storage tanks at natural gas transmission stations. The final updates to the NSPS do not change those requirements.
- The 2012 rule also included requirements for control of sulfur dioxide emissions from natural gas sweetening units. The 2016 final rule does not change these requirements.

For more information

- To read the final rule, and for summary information on requirements for other types of facilities in the oil and gas industry, visit www.epa.gov/airquality/oilandgas