

# Technical Bulletin

## LDAR Requirements in the Oil and Gas NSPS

Controlling emissions from “fugitive emission components” at affected sources is a significant part of the final Oil and Gas New Source Performance Standards (NSPS). Accordingly, the U.S. Environmental Protection Agency (EPA) expanded Leak Detection and Repair (LDAR) requirements beyond the 2012 rule, which only applied to volatile organic compound (VOC) emissions from Gas Processing facilities. The new NSPS rule broadens LDAR requirements to fugitive VOC and Methane emissions from Well Sites (gas & oil), Production Gathering and Boosting Stations, and Natural Gas Compressor Stations (see attached). NSPS new OOOOa will apply to facilities constructed, modified or reconstructed after September 18, 2015.

### Well Sites:

- Definition includes location of well(s) and associated equipment not located at the well site (e.g. centralized tank batteries).
- Initial Leak Survey required within one year of final rule or within 60 days of start of production.
- Semiannual Leak Surveys required in perpetuity.
- 30 days allowed to repair leak and 30 days allowed to re-inspect after date of repair.

### Natural Gas Production Gathering and Boosting Stations:

- Initial Leak Survey required within one year of final rule or within 60 days of startup of new or modified gathering and boosting station.
- Quarterly Leak Surveys required in perpetuity.
- 30 days allowed to repair leak and 30 days allowed to re-inspect after date of repair.

### Natural Gas Transmission Compressor Stations

- Initial Leak Survey required within one year of final rule or within 60 days of the startup of a new or modified compressor station.
- Quarterly Leak Surveys required in perpetuity.
- 30 days allowed to repair leak and 30 days allowed to re-inspect after date of repair.

### Monitoring Instruments:

- Optical Gas Imaging (OGI) – Video camera which allows the operator to “see” leaks. EPA identified the OGI as the Best System of Emissions Reduction (BSER) for detecting equipment leaks.
- Method 21 – Compliant instruments “sniffers” can be used as an alternative monitoring method at a leak repair threshold of 500 ppm.
- Emerging Technology – the EPA will allow owner/operators to request the use of “an alternative means of emission limitation”.

### Monitoring Plans:

Affected facilities must develop an emissions monitoring which includes: 1) Monitoring frequency, 2) Monitoring technique/instrument, 3) Manufacturer and model of instrument, and 4) Component Identification, Repair, Procedures, and Records. Depending on the Monitoring technique, the Plan must include the following:

**OGI:** 1) Instrument Specifications need to be identified as compliant with certain criteria, 2) Outline monitoring procedures, performance limitations, and training standards, and 3) A sitemap and defined monitoring path that ensures all components are within sight of the path.

**Method 21:** 1) Instrument Specifications need to be identified as compliant with certain criteria, 2) Outline monitoring procedures, performance limitations, and training standards, and 3) A sitemap and a list of components to be monitored and method for determining location of fugitive emissions to be monitored (e.g. tagging, identification on a process and instrumentation diagram, etc.).

### For more information contact:

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Sources covered by the 2012 New Source Performance Standards (NSPS) for VOCs and the 2016 NSPS for Methane and VOCs, by site				
Location and Equipment/Process Covered	Required to Reduce Emissions Under EPA Rules	Rules that Apply		
		2012 NSPS for VOCs*	2016 NSPS for methane	2016 NSPS for VOCs
<b>Natural Gas Well Sites</b>				
Completions of hydraulically fractured wells	✓	•	•	
Compressors				
Equipment leaks	✓		•	•
Pneumatic controllers	✓	•	•	
Pneumatic pumps	✓		•	•
Storage tanks	✓	•		
<b>Oil Well Sites</b>				
Completions of hydraulically fractured wells	✓		•	•
Compressors				
Equipment leaks	✓		•	•
Pneumatic controllers	✓	•	•	
Pneumatic pumps	✓		•	•
Storage tanks	✓	•		
<b>Production Gathering and Boosting Stations</b>				
Compressors	✓	•	•	
Equipment leaks	✓		•	•
Pneumatic controllers	✓	•	•	
Pneumatic pumps				
Storage tanks	✓	•		
<b>Natural Gas Processing Plants*</b>				
Compressors	✓	•	•	
Equipment leaks	✓	•	•	
Pneumatic controllers	✓	•	•	
Pneumatic pumps	✓		•	•
Storage tanks	✓	•		
<b>Natural Gas Compressor Stations (Transmission &amp; Storage)</b>				
Compressors	✓		•	•
Equipment leaks	✓		•	•
Pneumatic controllers	✓		•	•
Pneumatic pumps				
Storage tanks	✓	•		
* Note: Types of sources already subject to the 2012 NSPS requirements for VOC reductions that also are covered by the 2016 methane requirements will not have to install additional controls, because the controls to reduce VOCs reduce both pollutants				