



**Department of the Environment**

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# COMAR 26.11.29 NO<sub>x</sub> Emissions from Natural Gas Pipeline Compression Stations

Air Quality Control Advisory Council  
May 19, 2014





# Background on Earlier Proposal

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- Original action proposed to create unique chapter containing all requirements for both natural gas compression stations and cement plants
- Regulation presented to AQCAC on January 31, 2011.
  - Full pass by Council
- February 2011 - MDE Air Permits Program noted issues with regulation
- Regulation presented to AQCAC on June 13, 2011.
  - Full pass by Council
- EPA comments on Cement Plant requirements on September 12, 2012 public hearing
  - Required amendments to Cement Plant regulation
  - Both proposed regulations withdrawn on August 23, 2013





# Purpose of Current Action

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- To maintain and consolidate NOx emission requirements for internal combustion engines located at natural gas pipeline compression stations as these requirements are part of SIP.
- These NOx emission requirements will now be located in a unique Chapter.
- There are no additional requirements established at this time.





# NOx Requirements

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- NOx RACT requirements, currently under COMAR 26.11.09.08I, established maximum hourly NOx emission limits.
- Natural gas pipeline compression stations will continue to meet the requirements established under the NOx SIP Call.
  - NOx SIP Call requirements were re-codified when these requirements were moved to new COMAR 26.11.29 on May 31, 2010.





# NOx RACT

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- NOx RACT requirements established maximum hourly NOx emission rates on engines at affected facilities based on the number of engines at the facility.
- Different rates established for facilities with 5 or less engines and for those with over 5.

## Combined maximum hourly emission rate

*Five or less engines*

300 lbs./hr. or less

*Over five engines*

566 lbs./hr. or less





# NOx SIP Call Requirements

- Gas compression stations will continue to meet the NOx emission requirements that were included in the NOx SIP Call.
  - Gas compression stations rebuilt their engines to meet more stringent requirements under the NOx SIP Call and currently meet requirements.

## Emission Standards

Type Engine	Size (brake HP)	Standard (15% oxygen)
Spark ignited rich burn	2400 HP	110 ppmv
Spark ignited lean burn	2400 HP	125 ppmv
Diesel engines	3100 HP	175 ppmv
Dual fuel engines	4400 HP	125 ppmv





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# Permit Amendments – 6-13-11

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- Limit requirements to stationary engines used to compress natural gas.
- Delete “control period” as regulation has been utilized annually since January 1, 2010
- Improve the “Demonstrating Compliance” regulation to clarify:
  - Specific requirements for engines equipped with CEMs and without.
  - Specify EPA test method or alternative for stack test.
  - Specify that the pollutant to be tested is NO<sub>x</sub>.

