



## MEMORANDUM

DATE: July 21, 2017

TO: Missouri Air Conservation Commission

FROM: Carol S. Comer, Director *Initials on File*  
Department of Natural Resources

SUBJECT: Variance Request – Kennett Board of Public Works  
10 CSR 10-6.390 “*Control of NOx Emissions From Large Stationary Internal Combustion Engines*”

On May 11, 2017, the Missouri Department of Natural Resources’ (Department) Air Pollution Control Program (Program) received a request from the Kennett Board of Public Works (Kennett) for a variance for two large stationary spark ignited internal combustion engines (IC engines) from the monitoring requirements specified in Missouri Air Conservation Commission Regulation 10 CSR 10-6.390, “*Control of NOx Emissions From Large Stationary Internal Combustion Engines*,” herein after referred to as “the rule.”

The two IC engines are located at the Kennett Generating Station and are identified in their operating permit as EU0012 and EU0013. These sources are currently subject to the monitoring requirements specified in the rule, which requires one of the following:

- The installation and maintenance of a continuous emissions monitoring system (CEMS), or
- A calculational and record keeping procedure based upon actual NOx emissions testing and correlations with operating parameters, that is approved by the director and EPA, and incorporated into the SIP in writing prior to implementation

Current operating information regarding these IC engines follows:

- Each engine has operated less than 300 hours per year over the past five years
- The average natural gas usage over the past three years, for both engines combined, is 0.18 million cubic feet per year, and
- The average NOx emissions over the past three years, for both engines combined, is 2.6 tons per year

The Department is currently in the process of revising the rule. The proposed amendment will add a twenty-five (25) ton exemption for spark-ignited IC engines similar to the exemption currently in the rule for combustion ignition IC engines. The twenty-five (25) ton exemption for spark ignited IC engines will provide the Kennett Generating Plant additional flexibility in the emission measurement approaches for compliance determinations. Currently Kennett tracks NOx emissions using an emission factor derived from a stack test. Kennett will continue to use this method to measure emissions. As stated above, their emissions are well below the proposed twenty-five (25) ton exemption.

It should also be noted that the Program is working toward issuing a current operating permit for the facility. If granted the variance will be included in the supporting documentation for issuance of this permit.

Kennett requests this variance for a period of two years, or until the rule revision comes into effect, whichever comes first. Kennett understands that the rulemaking process is lengthy and, if not completed within 2 years, they may request an extension of the variance. Kennett also understands that if at a future date, NOx emissions from either of these engines exceed 25 tons, this variance will be rescinded for that engine.

Upon certain conditions, the Commission may grant a variance, pursuant to state law (Section 643.055 and 643.110, RSMo). The Department has reviewed each of these conditions and compared them with the facts of this situation. State law authorizes the Commission to grant a variance if the person applying for the variance can show that compliance with the rule:

“would cause economic hardship” (643.055.2(1), RSMo);  
“is physically impossible” (643.055.2(2), RSMo);  
“is more detrimental to the environment than the variance would be” (643.055.2(3), RSMo);  
“is impractical or of insignificant value under the existing conditions” (643.055.2(4), RSMo);  
“will result in taking of property without just compensation” (643.110.1, RSMo); or  
“will result in the closing and elimination of any lawful business, occupation, or activity, without sufficient corresponding benefit or advantage to the people” (643.110.1, RSMo).

The Department believes this variance request meets the conditions of 643.055.2(4) in that the monitoring requirements as specified in Missouri Air Conservation Commission Regulation 10 CSR 10-6.390, “*Control of NOx Emissions From Large Stationary Internal Combustion Engines,*” when applied to the two IC engines located at the Kennett Generating Station, EU0012 and EU0013, is impractical or of insignificant value under the existing conditions.

The Department recommends granting the variance.

CSC:rsc