

# DEQ Guidance for Minor New Source Review Modeling of 1-Hour NO<sub>2</sub> from Intermittent Testing of Emergency Engines

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**State of Idaho  
Department of Environmental Quality**

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Certain industrial facilities have internal combustion (IC) engines that are used only to power emergency generators or fire-suppression pumps. These engines only operate for periodic testing and during an actual emergency. As such, these sources with intermittent emissions are difficult to model in a way that accounts for impacts in a reasonably accurate but conservative manner. As a result, Tyler Fox, leader of Environmental Protection Agency's (EPA) Air Quality Modeling Group, developed a memorandum entitled "Additional Clarification Regarding Application of Appendix W Modeling Guideline for the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard, dated March 1, 2011. The memo provides states with the flexibility to exclude certain types of sources with intermittent emissions from Appendix W modeling.

Upon a review of other states' application of the Tyler Fox memo, comments from the public and Idaho industry, an internal review of Idaho sources, NO<sub>2</sub> background levels, and various sample model runs; DEQ has determined that Nitrogen Oxides (NO<sub>x</sub>) emissions from the intermittent operational testing of engines powering emergency generators or fire-suppression water pumps may be excluded from the project-specific significant impact level (SIL) analysis and the cumulative NAAQS analysis for 1-hour NO<sub>2</sub>, providing the annual hours of operation from testing and maintenance are less than or equal to 100 hours.

This determination is applicable to minor source air permitting projects. The Director may require deviation from this guidance if deemed appropriate to assure compliance with 1-hour NO<sub>2</sub> NAAQS and IDAPA 58.01.01.203 or 01.403. DEQ will determine how emergency engines are included in permits for major sources, specifically those applicable to the Prevention of Significant Deterioration (PSD) program, on a case-by-case basis.

This guidance does not have the force and effect of a rule and is not intended to supersede statutory or regulatory requirements or recommendations of the state of Idaho or EPA. This guidance may be altered upon new or revised guidance from EPA, development of new methods to appropriately handle such emissions, or new information gained from technical analyses.

Contact the DEQ stationary source air modeling coordinator at (208) 373-0112 for any questions or additional information regarding data and methods for assessing air quality impacts from intermittently operated sources.



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