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Email Transmittal: ashulman@pa.gov
Ms. Arlene Shulman
Chief, Division of Air Resource Management
Pennsylvania Department of Environmental Protection
Bureau of Air Quality
P.O. Box 8468
Harrisburg, PA 17105-8468

Re: Comments to Ozone Transport Commission (OTC) Model Rule: Nonroad Diesel Equipment Anti-Idling (3.09.2012 draft)

Dear Ms. Shulman:

Please find below comments prepared by GenOn Energy, Inc. (GenOn) to the subject draft model rule (reference 42 Pa.B. 1471, Saturday, March 17, 2012). GenOn supports development of the model rule with the following changes:

The title of the draft model rule should be changed to more accurately describe the purpose of the rule.

GenOn understands that the purpose of the draft rule is to propose idling restrictions for selected nonroad diesel-powered engines. Because the current title of the draft rule does not accurately describe its purpose, the title should be changed to the following: "Model Rule for Idling Restrictions for Nonroad Diesel Engines." This wording is consistent with Act 124 of 2008 – Pennsylvania's Diesel-Powered Motor Vehicle Idling Act, which prohibits excessive idling from selected diesel-powered on-road motor vehicles.

Section Env-A XXXX.06 Exemptions should be changed as follows to designate other necessary exemptions:

Please see the following proposed changes (new text denoted by underlining, deleted text denoted by strikethrough):

The idling limit does not apply to:

(1) Idling necessary to ensure the safe operation of the equipment, including idling to verify that the equipment is in good working order, idling in order to operate defrosters, heaters, air conditioners or cargo refrigeration equipment or to install equipment, in order to prevent a safety or health emergency, or other conditions specified by the equipment manufacturer in the manual or other technical document accompanying the nonroad diesel engine;

Section Env-A XXXX.05 General Requirements should be changed as follows to (i) allow for consistency with Act 124 of 2008 and (ii) facilitate ease of implementation:

Please see the following proposed changes (new text denoted by underlining, deleted text denoted by strikethrough):

No person, entity, owner, or operator shall cause or allow the idling of nonroad diesel engine under its control or on its property for more than [~~three (3) / five (5)~~ fifteen (15) consecutive minutes].

GenOn Notes:
The guidance document to the OTC model rule included the following under the "Frequently Asked Questions" section:

"Wouldn't the continual shutting off and turning on of diesel engines actually damage the engine and emit more soot than idling?
Shutting off and turning on the engine will not result in engine damage or increased wear as long as the engine manufacturer's recommendations regarding warm-up and cool-down time are followed.[1] Additionally, emissions of all pollutants generally will be reduced by eliminating unnecessary idling."

[1] Taylor, G. W. (2003). *Review of the Incidence, Energy Use and Costs of Passenger Vehicle Idling.* Office of Energy Efficiency, Natural Resources Canada.

A copy of the aforementioned reference document is provided in Attachment 1 to this letter. Upon review of the document, GenOn is perplexed that the OTC concluded as described above because the "Taylor report"

- focused exclusively on contemporary gasoline-powered (spark ignition) engines rather than on diesel-powered (compression ignition) engines; and
- actually concluded that "there are no measurable increases in engine or spark plug wear or fouling due to modest amounts of extended engine idling" from such engines.

The "Taylor report" summarized their findings with respect to spark-ignition engine component impacts as follows:

"Reduced idling will have costs as the higher frequency of re-starts should be expected to reduce starter life and if the frequency to too high (GenOn – sic) will also affect battery and alternator life. Most of these costs can be reduced or eliminated by avoiding a very high frequency of starts. For instance, increasing the number of starts from 6 to 12 per day would probably not result in battery life problems and if the idle period avoided were more than 45 seconds in length there should be a net reduction in vehicle operating costs. Also, using batteries optimized for deeper cycling, and minimizing key-off loads (GenOn – loads to the battery when the engine is not operating) can minimize the battery cost. In some applications of high frequency starts, there may be a requirement for periodic boost charging or a charging system upgrade to meet the increased demands. Finally, in current generation engines, there are no measurable increases in engine or spark plug wear or fouling due to modest amounts of extended engine idling."

At GenOn's coal-fired electric utility plants, it is not uncommon for mobile non-road diesel equipment such as bulldozers and front-end loaders to have been in service for 30 or more years. The specifications for such engines obviously do not meet those for contemporary engines, which are more efficient and tolerant of frequent start-ups. During cold weather periods, it is GenOn's experience that older diesel engines require longer periods for (i) engine warm-up and (ii) warm-up for ancillary equipment such as hydraulic and air brake lines.

Additionally, the operations of non-road diesel equipment such as bulldozers and front-end loaders are often dependent on other activities that are beyond the direct control of the diesel equipment operator. For example, the rate at which materials (e.g., crushed coal) are moved by a bulldozer on a storage pile is dependent on the rate at which such materials are discharged from a stacker tube. It is not uncommon for operations that require the use of non-road diesel equipment to experience highly variable rates of activity in a construction / industrial environment that necessitate prompt responses by the diesel equipment operator. Consequently, it is inappropriate to propose diesel idling restrictions that are the same as those applicable to on-road diesel sources because on-road diesel sources are not normally subject to highly variable rates of activity encountered by non-road diesel equipment.

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GenOn appreciates the opportunity to provide comments to the draft model rule. Please contact Mr. Keith Schmidt (724-597-8193, Keith.Schmidt@genon.com) or me via telephone or email as listed above with any questions or concerns regarding these comments.

Very truly yours,

John P. Shimshock

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Comments to Ozone Transport Commission (OTC) Model Rule:

Nonroad Diesel Equipment Anti-Idling (3.09.2012 draft)

Attachment 1

Taylor, G. W. (2003). ***Review of the Incidence, Energy Use and Costs of Passenger Vehicle Idling.*** **Office of Energy Efficiency, Natural Resources Canada**