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ENVIRONMENTAL QUALITY BOARD

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The Honorable E. Christopher Abruzzo, Chair
Environmental Quality Board
Rachel Carson State Office Building
400 Market Street, 16th Floor
Harrisburg, PA 17101-2301

RE: Public Comment on Proposed Rulemaking, Additional RACT Requirements for Major Sources of NOx and VOCs [25 PA. CODE CHS. 121 AND 129]

Dear Secretary Abruzzo:

Please accept the following comments on the proposed RACT regulation published in the *Pa Bulletin* on April 19, 2014.

1. As a first point of discussion, the proposed change to the definition of *Stationary internal combustion engines*, in § 121.1 to remove the specific and current caveat that it only applies to § 129.203, reapplies this definition to all federal and state regulations impacting Reciprocating Internal Combustion Engines (RICE). Consequently the definition should use the same definition in EPA's RICE rule at 40 CFR Part 63, Subpart ZZZZ –

   > *Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

2. An overall problem with the structure of the proposed regulation is that it fails to exempt de minimis sources. § 129.99(b) allows an alternative RACT application for sources without presumptive RACT and with a NO_X PTE ≥5.0 tons and § 129.99(c) allows an alternative RACT application for sources without presumptive RACT and with a VOC PTE ≥2.7 tons. However there is no corresponding exemption for these non-presumptive RACT sources with emissions below de minimis levels from regulation under this rule. Consequently major facilities that have non-listed de minimis sources have no compliance alternative. There is no presumptive RACT limit, yet the sources are too small to qualify for the alternative RACT limits. The rule needs to exempt de minimis sources entirely.

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3. The intent of the regulation appears to be to regulate NO_X emissions from major sources of NO_X and VOC emissions from major sources of VOCs. The proposed language, however, makes this interpretation difficult to glean. We suggest the following amendments to § 129.96 Applicability:

   (a) **[This section and] The NO_X requirements and/or limitations of** §§ 129.97—129.100 apply Statewide to the owner and operator of a major NOx emitting facility **and the VOC requirements and/or limitations of §§ 129.97—129.100 apply Statewide to the owner and operator of** [or] a major VOC emitting facility**[, or both,]** that was in existence on or before July 20, 2012, for which a requirement or emission limitation, or both, has not been established in §§ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

Similar amendments would apply to (b)

   (b) **The NO_X requirements and/or limitations of** §§ 129.97—129.100 apply Statewide to the owner and operator of a major NOx emitting facility **and the VOC requirements and/or limitations of §§ 129.97—129.100 apply Statewide to the owner and operator of** [or] a major VOC emitting facility**[, or both,]** when the installation of a new source or a modification or change in operation of an existing source after July 20, 2012, results in the source or facility meeting the definition of a major NOx emitting facility or a major VOC emitting facility and for which a requirement or an emission limitation, or both, has not been established in §§ 129.51—129.52c, 129.54—129.69, 129.71—129.73, 129.75, 129.77, 129.101—129.107 and 129.301—129.310.

   Additionally, as far as new sources are concerned, DEP should consider specifying that any sources that have undergone BACT, BAT permitting, or LAER permitting after July 20, 2012 have established presumptive BACT limits in their plan approvals which supersede the requirements of §§ 129.97—129.100. The requirement for sources with recent plan approvals to go through a RACT exercise is nothing more than wasted effort on the part of the permittee and the Department.

4. The lack of clarity concerning applicability continues in § 129.97, regarding presumptive RACT. We recommend the following amendments:

   (b) The owner and operator of a source in this subsection located at a major NOx emitting facility **shall comply with the following NO_X requirements and/or limitations, and the owner and operator of a [or]** major VOC emitting facility**[, or both,]** subject to § 129.96 shall comply with the following **VOC requirements and/or limitations**:

5. § 129.97(g) provides sufficient clarity on the applicability issue but then misapplies the threshold applicability requirement to the source rather than the facility. It should be amended as follows:

   (g) The owner and operator of a NOx air contamination source in this subsection located at a major NOx emitting facility or a VOC air contamination source in this subsection located at a major VOC emitting facility, or both, subject to § 129.96 may not cause, allow or permit NOx or VOCs, or both, to be emitted from the air contamination source for which the **[source] facility** is major in excess of the applicable RACT emission limitation:

6. § 129.97(b) is also formulated in a somewhat convoluted fashion. It appears that the rule is attempting to regulate solid fueled boilers in subsection (1) and all other boilers in subsection (2), and in addition references a very old (1983) EPA document as a reference for the non-solid fuel boilers. In finalizing the boiler MACT rules, in early 2013, even EPA didn't reference their own thirty-year old document but instead promulgated regulations as to what a boiler tune-up must entail. Significantly, they did not promulgate different tune-up requirements based on the fuel. The common requirements, in both area source and major source boiler MACT for a tune-up are:

   - Inspect the burner and clean or replace components as necessary.
   - Inspect the flame pattern, and adjust to optimize within mfg. specs.
   - Inspect the air flow controller and adjust as necessary.
   - Optimize CO emissions consistent with mfg. specs.
   - Measure and record CO emissions pre and post tune-up.

The proposed rule, regarding solid fuel-fired boilers, requires minimization of NO_X emissions in the first instance, and minimization of CO emissions, only to the extent possible. This is inconsistent with the requirements of boiler MACT and potentially inconsistent with manufacturer's specifications on certain boilers. Additionally, on the non-solid fuel boilers, it makes little sense to require an owner or operator to attempt to find a 1983 document to find out what his compliance requirements are, when they can easily be included in the rule. For the sake of rule clarity and consistency with EPA boiler MACT and manufacturers' specifications we recommend that DEP modify this provision to have one rule for tune-ups regardless of the fuel combusted, that that rule mirror the existing boiler MACT requirements, and that those requirements be listed in the rule, as opposed to referencing an external document. An additional requirement to measure but not minimize NO_X emissions would not be in conflict with the Boiler MACT rules and may be of interest to the Department.

And finally, on the tune-up requirement, the rule should state that periodic tune-ups conducted in accordance with Boiler MACT requirements also satisfy the requirement in § 129.97(b) in the years in which they are conducted.

7. The rule uses "combustion source", an undefined term, in a few locations. Specifically, in § 129.97(c)(1) "A boiler or other combustion source..." and in § 129.97(d) "...a combustion unit or other combustion source..." (The term is used twice in this subsaection). Combustion unit and boiler are both defined terms. It is unclear whether the phrase "other combustion source" is an unnecessary redundancy or if sources other than combustion units are encompassed in this term.

8. The language in § 129.97(g)(4) is imprecise. The regulation addresses units burning multiple fuels during the compliance period, not necessarily "simultaneously".

9. **§ 129.98 Facility-wide or system-wide NOx averaging.** The 10% penalty for sources wanting to average seems ill-advised, unfair, and unnecessary. If the RACT limits are appropriately determined, additional restrictions would be beyond RACT and likely uneconomical. It appears that a facility could get around the 90% limit by doing an alternative RACT analysis. This would be more work for the Department and would likely arrive at the same result as if the 10% penalty were not applied. NO_X is viewed as a region-wide problem and there should be no concerns about individual hot spots. If there is concern about spatial impacts, perhaps the rule could prohibit averaging in different non-attainment classification areas.

An equally important, and somewhat related point, is that the regulation does not account for multiple sources using a single stack, which is essentially an averaging provision without penalty. The stack configuration should not be a factor in determining RACT limits and provisions for addressing common stack configurations should be included.

10. **§ 129.99(a). Alternative RACT.** This subsection states that an owner of a source subject to § 129.97 (presumptive RACT), subject to the applicability requirements of § 129.96 that cannot meet the applicable presumptive RACT limits of § 129.97 or participate in an averaging approach under § 129.98 may propose an alternative RACT limit. The fact that a facility may be able to participate in an averaging program should not in and of itself prohibit the facility from proposing an alternative RACT limit. This subsection should be amended as follows:

    (a) The owner or operator of an air contamination source subject to § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) located at a major NOx emitting facility or major VOC emitting facility, or both, subject to § 129.96 (relating to applicability) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation of § 129.97 **[or participate in either a facility-wide or system-wide NOx emissions averaging RACT operating permit modification under § 129.98 (relating to facility-wide or system-wide NOx emissions averaging RACT operating permit modification general requirements)]** may propose an alternative NOx RACT emission limitation or VOC RACT emission limitation, or both, in accordance with subsection (d).

11. **§ 129.99(b).** This subsection allows alternative NO_X RACT proposals only for sources that are not subject to § 129.97 or §§ 129.201-129.205 (the 5 County rules for boilers, turbines, and engines). The set of sources subject to §§ 129.201-129.205 and not § 129.97 is, if not a null set, at the very least a set with very few sources. But if any such sources do exist, they only have to meet the existing limits during the ozone season and in addition may presently purchase CAIR allowances to offset excess emissions. Any such sources should have the options of 1) complying with §§ 129.201-129.205 as presumptive RACT, or submitting an alternative RACT proposal. This subsection should be modified as follows:

(b) The owner or operator of a NOx air contamination source with a potential emission rate equal to or greater than 5.0 tons of NOx per year that is not subject to § 129.97 **[or §§ 129.201—129.205 (relating to additional NOx requirements)]** located at a major NOx emitting facility subject to § 129.96 shall propose a NOx RACT emission limitation in accordance with subsection (d). **Sources subject to §§ 129.201-129.205 and which do not have presumptive RACT limits in § 129.97 may comply with those limits as presumptive RACT or may submit an alternative RACT proposal in accordance with subsection (d).**

12. **Timing Issues.** The proposed rule requires that alternative RACT proposals be submitted within 6 months of the rule and that the emission limitations be implemented within one year of the rule. The proposed rule also allows for a 3 year compliance schedule if the source has to install air pollution control equipment, provided that the facility seeks this extension within 6 months of the promulgation of the final rule.

What this schedule fails to account for is the case where a facility, in good faith, submits an alternative RACT proposal which assumes that no controls are economically feasible and proposes an alternative RACT limit based on these assumptions, with the intention of meeting those limits within the 1 year time limit imposed by the rule. The Department then fails to approve this alternative RACT and the facility subsequently is forced to install control equipment to gain DEP approval. By that point the time frame for seeking the extended compliance waiver has passed, and the facility will be unable to apply for and obtain a plan approval to install the control equipment in whatever time is left after DEP approval of the ultimate plan within the remaining 6 months, by the end of which time compliance is required. The schedules should provide for:

(a) A 6 month period for initial submittal of the RACT proposal.
(b) A negotiation period, not to exceed 6 months, in the event DEP rejects the original RACT proposal, to negotiate an acceptable RACT limit with the Department.
(c) An additional 6 months, beginning with DEP approval or rejection of the alternative RACT proposal, to seek an extended compliance period if air pollution control equipment is required.
(d) A final compliance date, in the event a plan approval is not required, 6 months after DEP approval of the final alternative RACT proposal.
(e) A final compliance date, in the event a plan approval is required, three years after DEP approval of the alternative RACT proposal.

13. **§ 129.97(g)(1) and (2).** Presumptive RACT limits for EGU's. The presumptive RACT limits for EGUs, particularly as they relate to coal-fired boilers, have been the focus of extensive comments by the environmental NGO's, who are arguing that SCR should be required on all coal plants at all times. Their seemingly impeccable logic is that 80% of the coal-fired boilers have already installed the SCR equipment and the small additional operating costs of injecting ammonia should gladly be borne by electricity users in order to get lower emissions.

    Implementing this well intentioned, but flawed scheme would result in a classic example of unintended consequences. What this argument fails to realize is that the electrical grid in PA does not end at the state line. PJM dispatches electricity in our state from sources throughout the multi-state PJM region based on the cheapest power available to meet demand. Unfortunately for Pennsylvania, states to the west of us, including Ohio, and West Virginia are not in the Northeast Transport Region and are not automatically subject to the RACT requirements on their coal-fired sources. In addition, many of these mid-western states have less stringent environmental regulations than does Pennsylvania, even before this proposed rule. Consequently, imposing additional costs on PA sources will only export generation to upwind states that have for the most part dirtier generating sources. A short-sighted attempt to impose additional controls on PA sources is likely to result in dirtier electricity and increased pollution coming into the state, not to mention negative economic impacts, including lost jobs, resulting from additional loss of PA generating capacity.

    I urge the Department to include a PJM system-wide analysis of the projected impacts of any attempt to impose more restrictions on PA sources that are not shared by our upwind neighbors. This analysis should evaluate the impacts on upwind emissions that impact Pennsylvania as a result of increasingly stringent limits on in-state generation sources with an ultimate goal of demonstrating that any more stringent limit on EGUs in PA will not result in increases in the total atmospheric burden of air pollution from upwind states.

Thank you for the opportunity to comment on these proposed regulations.

Sincerely,

Fred P. Osman, P.E., BCEE, President