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The Honorable Patrick McDonnell, Chairman  
Environmental Quality Board  
Rachel Carson State Office Building  
400 Market Street  
Harrisburg, PA 17101

**RE: Proposed Rulemaking – Additional RACT Requirements for Major Sources of NO<sub>x</sub> and VOCs for the 2015 Ozone NAAQS**

Dear Chairman McDonnell,

On behalf of the Pennsylvania Chamber of Business and Industry, the largest, broad-based business advocacy organization in the Commonwealth, representing more than 9,000 member companies across all sizes and from all commercial and industrial sectors, thank you for the opportunity to comment on the EQB's proposed rulemaking, Additional RACT Requirements for Major Sources of NO<sub>x</sub> and VOCs for the 2015 Ozone NAAQS (Proposed RACT III), as published in the PA Bulletin on August 7, 2021 (51 Pa.B. 4333).

For the past several decades, the Chamber has been actively involved in issues relating to the stewardship of the environment, in particular regarding the appropriate regulation of sources that produce air emissions. On behalf of our members, the Chamber has brought the perspective of the regulated community to the development and refinement of various regulatory and policy issues relating to air quality. The Chamber also recognizes and appreciates the considerable efforts of the Pennsylvania Department of Environmental Protection staff in developing these proposed requirements, as well as the members of the Environmental Quality Board's time in fully considering the Chamber's comments and concerns.

The following comments will note the significant improvement in air quality that the Commonwealth has achieved through prior RACT rulemakings that allowed for flexibility. The comments will then note Chamber's support or concern with specific provisions of the proposed rulemaking.

**The Provisions of RACT II Provided for Significant Flexibility to Industry and Achieved a Significant Improvement in Air Quality**

In 2014, EQB proposed revisions to the RACT rules for existing major sources of NO<sub>x</sub> and VOCs in order to implement the 2008 ozone NAAQS, and in 2016 the rule ("RACT II") was published as final. The rule included a balanced approach to achieve environmental progress in an efficient manner, with technology-based presumptive limits for existing sources as well as the option to allow for case-by-case determinations for sources that did not fit within those source categories. These case-by-case evaluations reasonably provided for the ability of a permittee and the department to consider a source's design, operational process, and fuels. RACT II also continued to provide averaging provisions that afforded sources the ability to average emissions across commonly owned sources over a longer duration of time, with the outcome being equivalent environmental progress with a lower control cost. The Chamber supported these flexibility provisions, and the results speak for themselves.

While recognizing that upwind sources, forest fires and meteorological events, the Commonwealth is experiencing significantly fewer days of elevated levels of ozone. In 2016, according to PA DEP's dashboard of monitoring data, there were 169 day in which one or more ambient air quality monitors recorded ozone

levels about 70 ppb. In 2018, there were 108 such days. There were 24 such days in 2019 and 25 such days in 2018.

Further, the following table notes the significant progress in ambient air quality, based on the annual design values for ozone, per EPA’s database of design value data. Cells in red indicate the design values record representative 8-hour ambient air quality at or about the 2015 ozone standard of 70 ppb; green indicates the designated area is measuring attainment. With the exception of the Philadelphia metro, which is challenged by transportation emissions from the I-95 corridor, the entire state is in attainment for the 2015 standard, and the approach taken with RACT II is a big reason why.

**Table 1: Ozone Design Values by Designated Area, Pennsylvania (Source: US EPA)**

Designated Area	2014-2016 Design Value (ppm)	2015-2017 Design Value (ppm)	2016-2018 Design Value (ppm)	2017-2019 Design Value (ppm)	2018-2020 Design Value (ppm)
Allentown-Bethlehem-Easton, PA	0.069	0.070	0.071	0.069	0.066
Clearfield and Indiana Counties, PA	0.070	0.070	0.069	0.067	0.066
Erie, PA	0.066	0.065	0.064	0.062	0.062
Franklin County, PA	0.060	0.059	0.059	0.059	0.056
Greene County, PA	0.067	0.068	0.066	0.063	0.061
Harrisburg-Lebanon-Carlisle, PA	0.070	0.069	0.068	0.066	0.063
Johnstown, PA	0.063	0.063	0.061	0.058	0.057
Lancaster, PA	0.069	0.069	0.069	0.067	0.065
Philadelphia-Wilmington-Atlantic City	0.077	0.080	0.081	0.076	0.074
Pittsburgh-Beaver Valley, PA	0.070	0.070	0.071	0.068	0.068
Reading, PA	0.070	0.070	0.070	0.069	0.067
Scranton-Wilkes-Barre, PA	0.067	0.067	0.068	0.065	0.061
State College, PA	0.065	0.065	0.064	0.062	0.060
Tioga County, PA	0.063	0.064	0.064	0.060	n/a
York, PA	0.070	0.070	0.067	0.064	0.063

**In Contrast to the Flexibility Provided in RACT II, the Proposed RACT III Rulemaking Includes Significant Reductions in the Averaging Periods for Many Sources**

Proposed RACT III provision §129.112(g)(1) generally retains the RACT II presumptive emissions limitations for combustion units and process heaters from 25 Pa. Code §129.97(g)(1) while changing the 30-operating day average to a daily average at proposed provision 25 Pa. Code §129.115(b)(4) for sources with NOx CEMS monitoring. Requiring that compliance must be demonstrated on a daily averaging period, as opposed to the current 30-operating day averaging period, is a very significant tightening of those presumptive limits. This presents a significant compliance challenge for the vast majority of affected units that supply steam in a varying industrial setting. As the prior section of this comment letter showed, a 30-day averaging period will still be successful in reducing emissions and improving ambient air quality.

In addition to varying fuel firing conditions, a presumptive NO<sub>x</sub> limit on a daily average basis cannot be met during periods of cold startups. These occur during unit outages for short- or long-term maintenance, when power outages occur, and when the entire facility is shutdown for an annual maintenance period. The proposed rule makes no consideration for boiler cold starts, nor does it account for the fact that this administration has established a policy goal of encouraging more intermittent resources onto the grid, accelerating market trends (where billions in private capital have placed thousands of mega-watts of low- and zero-carbon resources and storage into the PJM queue for Pennsylvania). This in turn will require that some fossil-fuel fired EGU's, which formerly served as baseload power, will have to ramp on and off to meet demand. The language contained in the regulatory documents for the Proposed RACT III speak to the need to establish requirements that reflect the technical and operational capabilities of control technologies; such a reflection must also consider control technologies do not perform at optimum during start-up and shutdown. Further, given that attainment of federal ambient air quality standards for ozone is measured against representative 8-hour concentrations, averaged over three years. Such measurements contemplate there will be short-term fluctuations in ambient air quality, even at times above 70 ppb; it is therefore reasonable for a rule that implements these standards allow for a 30-day averaging period to account for operational fluctuations at regulated sources as well. We again reiterate that the state has achieved significant improvements in ambient air quality in recent years through the RACT II rule which incorporated a 30-day average period.

Within a 30-operating day average basis, there cannot be many periods of operation above the emissions rate limit to demonstrate compliance, and a daily average leaves no allowance for varying industrial conditions. CEMS procedures for substituting missing data with the highest value recorded in the quarter almost always will assure non-compliance with the daily limits. Changing from a 30-operating day averaging period to a daily averaging period for industrial boilers and process heaters will not reduce NO<sub>x</sub> emissions; rather, it will increase non-compliance with no economically feasible means to reasonably address compliance with this new averaging period.

The PA Chamber also requests that the final RACT III rulemaking contain language that affords DEP significant discretion with respect to alternative compliance schedules, in particular to industries whose operations make it difficult to shut down in order to install additional controls. Such would be the case for glass furnaces, which operate continuously and take significant amounts of time to cool down and restart. Forced shutdowns ahead of planned outages will likely diminish the financial viability of some facilities, and therefore the PA Chamber requests DEP reserve for itself the option to allow sources longer than three years to install control technology, particularly if the source is operating in a region or county that is measuring attainment for the 2015 ozone standard.

### **The PA Chamber Requests Clarification Regarding Ambiguities of Definitions and Key Provisions in the Proposed Rulemaking**

As proposed, §129.111(a) of uses the language “in existence on or before August 3, 2018” to describe facilities subject to the rule. The term “in existence” is not defined. The PA Chamber recommends that that the EQB add clarifying language to this provision as follows:

*§129.111(a) ... that were in existence on or before August 3, 2018 (The term “in existence” for the purposes of applicability under §129.111 is defined as when an emissions unit has completed construction/installation and commenced operation as a source of air emissions).*

Further, for sources where the RACT II presumptive limit either did not change or is still not presented in the proposed RACT III regulations, the PA Chamber requests that PADEP accept the 2016 cost analyses as

valid case-by-case analyses for RACT III where the control cost exceeds the RACT III levels of \$3,750 per ton of NO<sub>x</sub> and \$7,500 per ton of VOC. These are the cost-effective dollars-per-ton levels presented by PADEP and EQB in their regulatory analysis documents for RACT III.

Finally, the PA Chamber requests clarification that major sources of NO<sub>x</sub> be required to follow NO<sub>x</sub> requirements and major sources of VOC comply with VOC requirements. This appears to be implied in Section 129.111. However, there are sections further along in the Proposed RACT III rulemaking that are ambiguous or contradictory. For example, 129.112 (a) states:

**§ 129.112. Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule. (a) The owner and operator of a source listed in one or more of subsections (b)—(k) located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility subject to § 129.111 (relating to applicability) shall comply with the applicable presumptive RACT requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (n)—(p) or § 129.114 (relating to alternative RACT proposal and petition for alternative compliance schedule): (1) January 1, 2023, for a source subject to § 129.111(a).**

Further in subpart (k):

**(k) The owner and operator of a direct-fired heater, furnace or oven with a rated heat input equal to or greater than 20 million Btu/hour subject to § 129.111 shall comply with the presumptive RACT emission limitation of 0.10 lb NO<sub>x</sub>/million Btu heat input on a daily average basis or as determined through a stack test.**

Thus it could be inferred that if 129.111 applies to an entity, they may have to meet this presumptive NO<sub>x</sub> RACT limit even if they were a minor source for NO<sub>x</sub> (assuming major for VOC), or any other RACT limit. In other words, the proposed language appears to imply at times that if a source is major for NO<sub>x</sub> or VOC, then presumptive RACT requirements for both NO<sub>x</sub> and VOC could apply.

The PA Chamber does not believe this is the intention of DEP and EQB and as such requests that the Department provide additional clarification in the final rulemaking to ensure that the apparent overall intent of the regulations is clear: major NO<sub>x</sub> sources must follow NO<sub>x</sub> requirements, and major VOC sources must follow VOC requirements. The PA Chamber also requests consistency in the use of the new definition of units RACT III is applicable to (“combustion source”); this term was not included in subpart (k).

### **The Cost-Benefit Analyses of the Proposed RACT III Significantly Understate Expected Compliance Costs**

Agencies are required to compile a regulatory analysis, per the Regulatory Review Act, that includes an estimate of costs to the state and regulated community. The regulatory analysis form accompanying the Proposed RACT III rulemaking significantly underestimates the cost of this rule. EQB estimates there are nearly 500 sources in the state that will be affected by this rule. EQB estimates the cost to the regulated community for sources seeking alternative compliance provisions will spend on average \$4,000 to \$6,000 per facility. However, the regulatory analysis form does not include an estimate for sources that will need to spend time and resources to comply with presumptive limits or a case-by-case demonstration. EQB should update its regulatory analysis form to reflect that at minimum sources can be expected to spend, at a conservative estimate, a minimum of an additional \$15,000 to \$20,000 in consulting and legal fees, plus plan

approval fees. If this is the case for just half of the 500 major sources, the total costs would be more than \$4.3 million. If it is the case for all of the 500 major sources, the total costs would be double that figure.

Further, the Proposed RACT III includes a number of new presumptive limits and stricter averaging periods. Yet the regulatory analysis form estimates that the cost of additional control technology to the entire universe of 500 affected sources will be just \$25 million, but the RAF is unclear as to how EQB and DEP arrived at the number. Accompanying technical support documents include a range of cost estimates for various controls, costing each between \$2 million and \$4 million. These estimates for individual controls appear accurate, but if the total cost is \$25 million, then EQB and DEP's assumption appear to be that between six and a dozen sources in the entire state will need additional controls. We request the RAF be updated to clarify the number of facilities DEP and EQB expect to need to install additional controls, as well as to clearly identify costs.

Finally, the PA Chamber questions where DEP has appropriately considered all relevant costs in establishing RACT III limits. The accompanying technical support document assumed presumptive limits can be achieved for NO<sub>x</sub> through the use of selective catalytic reduction controls (SCRs) but does not include an estimate for the cost of accompanying particulate controls that are needed to run alongside SCR technology, such as electrostatic precipitators. The cost of these additional controls are likely to increase the costs to the regulated community above the \$3,750 per ton figure the agency estimates as being the threshold for cost-effectiveness.

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In closing, the PA Chamber thanks DEP and EQB for its consideration of these comments and looks forward to continuing to work with regulators and policymakers on laws and regulations that continue to allow for economic growth and environmental stewardship.

Sincerely,



Kevin Sunday  
Director, Government Affairs