

**SUMMARY OF COMMENTS
PROVIDED BY THE
ELECTRIC POWER GENERATION ASSOCIATION**

The Electric Power Generation Association ("EPGA") is a Pennsylvania-based, regionally-focused association of electric power generation companies that own and operate more than 125,000 MWs of generating capacity.

The proposed rulemaking regarding the additional RACT requirements for major sources of NO_x and VOCs directly impacts the members of the EPGA and their facilities.

EPGA supports the proposed rulemaking because it has been rigorously developed by the Department of Environmental Protection ("DEP") over an extended period and it reflects a balanced, appropriate approach to the further reduction of NO_x and VOCs in the Commonwealth.

DEP has included in the proposal presumptive RACT options, which will necessarily achieve reductions in the emissions of NO_x and VOCs while simultaneously preserving the ability of electric power generators to continue to operate in the current wholesale electric marketplace, which is under significant and extraordinary transition.

Specifically, DEP has included provisions in the proposed rule that electric power generators require for continued successful operation while reducing emissions. For example, the averaging options provide sources and fleets with operational and compliance flexibility that will provide for the overall result of additional reductions in a manner that can allow the affected sources to manage their operations in an economically. EPGA suggests that the department conform its equation of the averaging provision to the actual text provided in the rule. EPGA also encourages DEP to consider other alternative averaging options which have been utilized successfully in other states.

Further, the case-by-case compliance option provides affected sources with the ability to comply with RACT when individual circumstances do not provide for other viable alternatives. EPGA does not believe that, however, that the averaging option should have to be exercised prior to being eligible for a case-by-case option.

EPGA notes that RACT is only one of several upcoming and ongoing rulemakings that will reduce NO_x emissions in the Commonwealth and that RACT should not be considered to be the same as BACT or LAER. In fact, specific emission reductions are not required when a RACT re-evaluation is undertaken.

EPGA also wishes to highlight the value in maintaining the proposed averaging periods (30 day rolling average), a methodology which has been historically utilized and that reflects a unit's controlled emissions rate. Additionally, we note that elevated "spikes" in emissions in certain local areas on a short term basis cannot necessarily be attributed to RACT affected sources.

Finally, EPGA urges that, given the pendency of other rules and the necessity for certainty for the regulated community, DEP move expeditiously to complete the proposed rulemaking so that emission reductions can occur and that affected sources can properly plan and manage their operations.



KEYSTONE CEMENT COMPANY

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May 29, 2014

Hand Delivered | Public Meeting Testimony

PA Environmental Quality Board
Rachel Carson State Office Building
16th Floor, 400 Market Street
Harrisburg, PA 17101-2301

**RE: Environmental Quality Board
Proposed Rulemaking
Additional RACT Requirements for Major Sources of NOx and VOCs
25 PA. Code Chs. 121 and 129**

Dear Sir/Madam:

As detailed on Page 2397 of the above-referenced Proposed Rulemaking, Keystone Cement Company (Keystone) is providing the following "one-page" summary of our comments to the Proposed Rulemaking. A separate letter, providing our detailed comments will be submitted under a separate cover prior to the close of the public comment period on June 30, 2014. In addition, we may augment and revise this letter if we have additional areas of comments beyond what is presented in this letter prior to the deadline.

- Keystone believes that the one year compliance schedule detailed at §129.97 is infeasible for the design, permitting, installation, and optimization of the NOx control devices that may be required to demonstrate compliance with the proposed RACT emission limitation for "pre-heater, pre-calciner" kilns. Based on the necessary actions, and their estimated time needed for completion, Keystone believes that a minimum compliance period of 30 months is necessary and appropriate for inclusion into the proposed RACT Rule.
- Similar to our comments above, Keystone believes that a one-year compliance schedule for implementing an alternative RACT NOx limitations is infeasible, especially in light of the fact that the alternative limitation may not be approved by the DEP until at least 6 months after the effective date of the Rule. Therefore, Keystone believes that §129.99 of the Proposed Rulemaking revised to include a compliance schedule defined as "within 30 months after approval of the alternative emissions limitation."

Any questions or requests for further information should be directed to the undersigned at (610) 837-1881, ext. 3213.

Sincerely,

Jeffrey W. Smith, P.E.
Manager, Environmental Compliance

cc: Mr. Stephen P. Holt, P.E. (Keystone)

ADMINISTRATION
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Summary of the State of New Jersey Department of Environmental Protection's Comments regarding Amendments to Chapters 121 and 129, "Additional RACT Requirements for Major Sources of NO_x and VOCs", proposed on April 19, 2014, by the Environmental Quality Board

The New Jersey Department of Environmental Protection urges the Board to adopt Reasonably Available Control Technology (RACT) limits that are at least equivalent to those adopted by New Jersey five years ago in 2009. The Department's NO_x RACT limits for existing electric generating units (EGUs) are substantially lower than the corresponding Pennsylvania proposed emission limits as illustrated below.

1. Coal Fired Boilers

- NJ Limit 0.15 lb./MMBTU (all units, converted from 1.5 lb/MWh)
- PA Limit 0.35 lb./MMBTU (>250 Tangential)
- PA Limit 0.40 lb./MMBTU (>250 All Others)

2. Simple Cycle Turbines

o Natural Gas

- NJ Limit 25 ppm @ 15% O₂
- PA Limit 42 ppm @ 15 % O₂

o Fuel Oil

- NJ Limit 42ppm @ 15% O₂
- PA Limit 75 ppm @ 15 % O₂

3. Combined Cycle Turbines

o Natural Gas

- NJ Limit 25 ppm @ 15% O₂
- PA Limit 42 ppm @ 15% O₂

o Fuel Oil

- NJ Limit 42 ppm @ 15% O₂
- PA Limit 75 ppm @ 15 % O₂

For compliance demonstration during the ozone season, New Jersey requires compliance each calendar day; Pennsylvania demonstrates compliance based on a 30-day rolling average, which is less stringent. Hence, the difference in stringency is more pronounced than indicated in this summary. Also, a daily limit is more protective of the ozone health standard which is an 8-hour limit.

New Jersey's RACT limits are reasonable performance standards that are necessary to attain and maintain the 75 ppb NAAQS throughout the region. Implementing up to date RACT limits, especially NO_x performance limits for EGUs, would help us all achieve clean air. More detailed comments have also been submitted, including RACT recommendations regarding electric generating internal combustion engines. Thank you for considering New Jersey RACT rules when evaluating those in your state.

**SUMMARY OF COMMENTS
PROVIDED BY HONEYWELL INTERNATIONAL INC.**

Honeywell International Inc. ("Honeywell") is a Fortune 100 company operating several manufacturing facilities in Pennsylvania. The Board's Proposed Rule governing additional RACT requirements for major sources of NO_x and VOC emissions would directly affect Honeywell's operations in Pennsylvania.

Honeywell endorses the Board's stated objective through the proposed rulemaking of achieving clarity and certainty in the implementation of the RACT regulatory scheme in order to minimize unnecessary burden on the Department's resources and the commitment of both technical and economic resources from the private sector that do not translate directly to environmental protection. Honeywell also supports the general framework of the proposed rulemaking, pursuant to which the Board would afford alternative compliance options for regulated facilities, in the form of presumptive RACT standards, facility- or system-wide emission averages, or a source-specific, case-by-case evaluation of RACT standards. However, in order to achieve these objectives, the Proposed Rule should be revised to achieve greater clarity and certainty through individual provisions, specifically including the following:

- Revise Section 129.97(b) to clarify that subparagraphs (1) and (2) thereof constitute *alternative* compliance options, and are not simultaneously applicable.
- Revise Section 129.97(c) to require affected sources to be installed, maintained and operated in accordance with good engineering practice, which, *in appropriate circumstances*, would include operation in accordance with manufacturer's specifications; under certain circumstances, historic manufacturer's specifications may not fully align with good engineering practice.
- Include regulatory language to clarify that Sections 129.97(c) and 129.97(d) are not simultaneously applicable to the same sources.
- Revise Section 129.97(d) to limit applicability to combustion units exceeding certain size thresholds.
- Do not adopt the proposed change to the regulatory definition of *stationary internal combustion engine*. The proposed change to the definition would expand the scope of regulatory applicability (not only relative to RACT) in a manner inconsistent with federal standards.
- Revise the provisions governing CEMS to clarify that compliance demonstrations are based on thirty-day rolling averages.

In addition, the Board recognizes the value of establishing appropriate presumptive RACT standards in order to reduce the demand on the Department's resources and unnecessary and duplicative private party efforts in performing RACT evaluations. Therefore, the Proposed Rule should be revised to include a presumptive NO_x emission standard for sources larger than 250 MMBtu/hr combusting liquid, non-fossil fuels, or co-firing liquid, non-fossil fuels with liquid fossil fuels. A presumptive NO_x emission standard of 0.20 lbs/MMBtu would be consistent with RACT considerations for this source category.

The Proposed Rule should also be revised to clarify that an affected source may, *at its election*, determine to rely upon presumptive RACT, emission averaging or a case-by-case evaluation, and not be subjected to any preconditions to the use of any specific compliance options. Application of any such precondition is inconsistent with legal RACT standards and would be inconsistent with the objectives of the rulemaking identified by the Board.

The emission averaging provisions of the regulation should be revised to establish a fixed mass emission standard, rather than a variable standard dependent on actual operating rates.

Finally, given the complexity of this regulatory scheme, compliance schedules should be revised for sources undergoing case-by-case RACT determinations, to commence the one year and three year compliance schedules from the date the source receives its final RACT determination.

Proposed Revisions to 25 PA Code, Chapters 121 and 129, PA Bulletin, Vol. 44, No. 16 (April 19, 2014)
Additional RACT Requirements for Major Sources of NO_x and VOCs,
Summary of Comments Submitted to Environmental Quality Board by
The Williams Companies, Inc.

Comments submitted to the Environmental Quality Board by The Williams Companies, Inc. address the proposed requirements for control of nitrogen oxides (NO_x) emissions and volatile organic compound (VOC) emissions from stationary natural gas fired reciprocating internal combustion engines and stationary natural gas fired turbines. Williams' Transcontinental Gas Pipe Line Company, LLC operates engines and turbines to compress natural gas through its pipeline system for delivery to residential, commercial, industrial and electrical generation customers in Pennsylvania and beyond. Requirements in the proposed Pennsylvania Department of Environmental Protection (PA DEP) regulations would impact approximately forty (40) existing natural gas engines and/or turbines at six (6) Transco natural gas compressor stations.

Williams shares PA DEP's desire to reduce the burden associated with case-by-case RACT analysis, but several issues must be addressed to achieve that objective. Primary issues include:

- 1) The Proposed Rule significantly under-estimates the number of affected units that would require installation of NO_x or VOC control technology. Industry estimates that approximately 150 units operated by natural gas transmission companies would be affected by the rule; this exceeds the PA DEP estimate for all affected source types statewide. Thus, the rule would have significant impact on natural gas transmission company operations. The Proposed Rule would impose many requirements to install control technology; those associated costs are significantly under-estimated by the Department.
- 2) The compliance schedule in the Proposed Rule is not feasible. The schedule requires compliance within one year, with an option to request an extension of up to three years to comply. Due to the large number of affected units, there are significant scheduling implications which could impact the reliability of gas delivery. Based upon Williams' historical experience with emission reduction projects, an implementation timeline of more than three years is required to comply. The regulation should allow operators to develop a plan – subject to Department review and approval – to establish the compliance schedule for affected equipment.
- 3) The VOC emission standards for engines and turbines should be deleted, or replaced with a compliance option based on good combustion practices. The PA DEP Regulatory Analysis Form inappropriately assumes that no additional emission controls would be required – and thus does not further assess implications. The proposed VOC emission standards would accomplish minimal reductions at a very high cost.
- 4) The applicability threshold for turbines required to comply with emission standards should be revised to 6,000 horsepower (hp). If not, an entire class of turbines would be required to request case-by-case alternative RACT because retrofit emission control is not available for smaller turbines.
- 5) Williams supports including emissions averaging in the Proposed Rule. Companies should have the option to comply with either the unit-specific emission limit or through the use of emissions averaging – without first having demonstrated that the unit-specific limit cannot be met for the affected units.

Williams believes that emission reductions can be achieved, but PA DEP must revise the Proposed Rule to consider technical and economic feasibility and to define reasonable schedules. Therefore, Williams recommends that the Environmental Quality Board withdraw the proposed regulation until PA DEP can address these comments and prepare a revised Regulatory Analysis Form. Williams offers the Department its assistance to reconcile the issues identified herein and to facilitate the development of viable, effective, and reasonable RACT requirements for natural gas-fired reciprocating engines and turbines.

**SUMMARY OF COMMENTS FROM
PENNSYLVANIA CHAMBER OF BUSINESS AND INDUSTRY
RE: PROPOSED ADDITIONAL RACT REQUIREMENTS
FOR MAJOR SOURCES OF NO_x AND VOCS**

June 30, 2014

The Pennsylvania Chamber of Business and Industry (PA Chamber), the largest, broad-based business advocacy group in the Commonwealth, appreciates the opportunity to submit comments on the above-referenced proposed "RACT II" rulemaking. 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 Chamber's comments support maintaining and even enhancing the flexibility provided for compliance with and administration of these proposed regulations to comply with updated reasonably-available control technology ("RACT"). Examples of flexibility in the proposed rulemaking that should be maintained include the following:

- balancing the efficiency of presumption RACT emission limitations for categories of sources with opportunities for case-by-case RACT demonstrations;
- providing opportunities for emissions averaging as a method of demonstrating RACT compliance for any covered RACT sources under common control;
- affording opportunities to adjust compliance schedules to reflect practical considerations; and
- excluding small sources from coverage by RACT requirements.

In addition, the Chamber advocates the following:

- starting compliance timetables at the time a proposed RACT plan is approved (as has been the case under existing RACT regulations), rather than as of the effective date of the final regulations;
- eliminating the 10% "take-away penalty" for emissions averaging;
- clarifying that any source utilizing a CEMS to demonstrate compliance with *any* established RACT standard would be allowed to demonstrate compliance as a thirty-day rolling emissions average; and
- not imposing the cost of required public hearings and notifications in connection with necessary State Implementation Plan revisions on owners/operators seeking case-by-case RACT plan approvals.

**Proposed Revisions to 25 PA Code, Chapters 121 and 129, PA Bulletin, Vol. 44, No. 16 (April 19, 2014),
Additional RACT Requirements for Major Sources of NOx and VOCs (Proposed Rule)
Summary of Comments By the Interstate Natural Gas Association of America**

Comments submitted by the Interstate Natural Gas Association of America (INGAA), a trade association of the interstate natural gas pipeline industry, address the proposed requirements for control of nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions from stationary natural gas-fired reciprocating internal combustion engines (RICE) and turbines. INGAA members operate natural gas transmission and storage facilities in Pennsylvania, which use RICE and turbines to drive compressors. The requirements in the proposed Pennsylvania Department of Environmental Protection (PA DEP) rule would affect many of these units.

INGAA and its members share PA DEP's desire to reduce the burden associated with case-by-case RACT analysis, but a number of issues must be addressed to achieve that objective. Primary issues include:

(1) The Proposed Rule significantly underestimates the number of affected units that would require installation of NO_x or VOC control technology. Approximately 150 units operated by natural gas transmission companies would be affected by the rule; this exceeds the PA DEP estimate for all affected units statewide. Thus, the rule would have significant impact on natural gas transmission company operations, including many requirements to install control technology and associated costs that are significantly under-estimated by PA DEP.

(2) The compliance schedule in the Proposed Rule is not feasible. The schedule requires compliance within one year, with an option to request an extension that allows up to three years. Due to the large number of affected units, there are significant scheduling implications, which could affect the reliability of gas delivery. An implementation timeline of more than three years is necessary to comply. Instead of a hard three-year deadline, operators should be allowed to provide a plan, for PA DEP review and approval, that establishes the compliance schedule for an operator's affected equipment.

(3) The proposed VOC emission standards should be deleted or replaced with compliance requirements based on good combustion practices. PA DEP relies on support documentation that inappropriately assumes that VOC emission controls would not be required, and it fails to assess implications. The proposed VOC emission standards would accomplish minimal reductions at a very high cost.

(4) The applicability threshold for turbines required to comply with emission standards should be revised to 6,000 horsepower (hp). If not, an entire class of turbines would be required to request case-by-case alternative RACT because retrofit emission control is not available for smaller turbines.

(5) INGAA supports including emissions averaging in the Proposed Rule, but that compliance option should be accessible at the discretion of the operator rather than requiring operators to first demonstrate that emission limits cannot be met for affected units.

INGAA believes that emission reductions can be achieved, but PA DEP must revise the Proposed Rule to consider technical and economic feasibility, and to define reasonable schedules. INGAA recommends that the Environmental Quality Board withdraw the proposed regulation until PA DEP can address these comments and prepare a revised Regulatory Analysis Form. INGAA offers its assistance to reconcile the issues herein and facilitate the development of viable, effective, and reasonable RACT requirements for natural gas-fired reciprocating engines and turbines.

ENVIRONMENTAL QUALITY BOARD, ONE PAGE SUMMARY RACT RULEMAKING PROPOSAL

25 PA CODE CHAPTERS 121 AND 129

ADDITIONAL RACT REQUIREMENTS FOR MAJOR SOURCES OF NOX AND VOC'S

PA. BUL 44 (16). APRIL 19, 2014

1. **THIS PROPOSED REGULATION (PA. BUL. 44(16) APRIL 19, 2014) IS NOT RACT.** IT DOES NOT ACCOMPLISH REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT), BUT MAINTAINS A STATUS QUO THAT DOES NOT MEET THE FEDERAL CLEAN AIR ACT TEST OF REDUCING AIR POLLUTION EMISSIONS FOR NITROGEN OXIDES AND VOC'S (VOLATILE ORGANIC CHEMICALS) "... AS EXPEDITIOUSLY AS PRACTICABLE".
2. **CURRENT 93,000 TPY NOX EMITTED VERSUS PROPOSED ALLOWABLE OF 132,000 TPY NOX EMITTED FROM PA POWER PLANTS?**
3. **EPA WILL HAVE NO CHOICE BUT TO DISAPPROVE THIS PROPOSED REGULATION.** PENNSYLVANIA WILL ALSO BE OPEN TO MISSING REGULATORY DEADLINES AND THE POSSIBILITY THAT EPA WILL ISSUE A FEDERAL IMPLEMENTATION PLAN IN THE FUTURE.
4. **MANY OF THESE PROVISIONS DO NOT MEET THE CAA REQUIREMENT FOR A MONITORED, VERIFIABLE, MEASUREABLE AND FEDERALLY ENFORCEABLE EMISSIONS CONTROL**
5. **THE RACT LIMIT SHOULD BE 0.05 LBS/MMBTU NOX.**
6. **TURNING OFF POLLUTION CONTROL EQUIPMENT IS ILLEGAL AND UNACCEPTABLE. THIS USE OF SCR HAS BEEN ACCEPTED AS PART OF PENNSYLVANIA'S SIP. WHY HAVE THESE PLANTS NOT BEEN ISSUED A NOTICE OF VIOLATION (NOV)**
7. **THERE SHOULD NOT BE A ROLLING 30 DAY AVERAGE;**
8. **IT IS BAD PRACTICE TO AVERAGE EMISSIONS OVER AN OWNER/OPERATOR'S MULTIPLE FACILITIES AND SOURCES ACROSS PA, INCLUDING WITHOUT REGARD TO WHETHER THE OTHER SOURCES ARE UPWIND OR DOWNWIND. THIS PRACTICE IS GUARANTEED TO CREATE "HOTSPOTTING" SOMEWHERE IN PA MULTIPLE TIMES;**
9. **THERE WILL BE A SPIKE IN OZONE SMOG POLLUTION LEVELS BY 2050 ACROSS THE CONTINENTAL USA**
10. **SOTA 2014, PARTS OF OUR STATE RANKS 12TH, 16TH, AND 21ST IN MOST PEOPLE AT RISK FROM OZONE SMOG POLLUTION DURING THE PAST YEAR 2013-2014. AT RISK ARE 9,790,797 PEOPLE;**
11. **CENTRE COUNTY AS RANKING A FAILING' F' GRADE IN THE OCCURRENCE OF HIGH OZONE VIOLATION DAYS. CENTRE COUNTY RANKS 84TH FOR HIGH OZONE DAYS OUT OF 277 METROPOLITAN AREAS. CENTRE COUNTY IS CONSIDERED AS HAVING CLEAN AIR;**
12. **TOTAL ENERGY CONSUMPTION FOR PA IN 2011 WAS 3,725 TRILLION BTU CONSUMED, RANKING PA 7TH IN THE NATION;**
13. **OZONE SMOG PRECURSOR POLLUTANTS SUCH AS NITRATES AND SULFATES – SMALL PARTICULATE MATTER – HAVE DRASTIC HEALTH CONSEQUENCES. IN THE 2009 ENVIRONMENTAL HEALTH PERSPECTIVES PAPER BY ZANOBETTI AND SCHWARTZ¹, IT WAS CONCLUDED THAT THERE IS AN INCREASED RISK OF MORTALITY FOR CARDIOVASCULAR DISEASE, MYOCARDIAL INFARCTION, STROKES AND RESPIRATORY DISEASE FROM SMALL FINE PARTICLES SOOT;**
14. **RURAL PENNSYLVANIA IS ENDANGERED BY A SIGNIFICANT LACK OF AIR POLLUTION MONITORING;**
15. **IN PENNS VALLEY, CENTRE COUNTY, THE BURDEN FROM NON COAL MINING IS VISIBLE THROUGHOUT OUR AREA FROM DUST LEAVING THE BOUNDARIES OF THE MINING SITE ILLEGALLY. IT SHOULD BE MONITORED FOR VISIBLE PLUMES LEAVING THE SITE, AND RECORD LEVELS OF PM 10 (COARSE PARTICULATE) AND PM2.5 (FINE PARTICLE SOOT) POLLUTION;**
16. **THE ONLY POSSIBLE CONCLUSION IS THAT EQB MUST NOT APPROVE THIS FAILED ATTEMPT AT REGULATION AND IT MUST BE RETURNED TO PADEP TO BE RE-WRITTEN.**

THANK YOU.

¹ Zanobetti, Antonella and Joel Schwartz. *The Effect of Fine and Coarse Particulate Air Pollution on Mortality: A National Analysis.* ENVIRONMENTAL HEALTH PERSPECTIVES 117(6): JUNE 2009.

Comments – PA DEP Proposed RACT Rule
June 27, 2014

EXECUTIVE SUMMARY

The Interstate Natural Gas Association of America (INGAA), a trade association of the interstate natural gas pipeline industry, respectfully submits these comments regarding the Pennsylvania Department of Environmental Protection (PA DEP) Proposed Rule, *Additional RACT Requirements for Major Sources of NO_x and VOCs* (Proposed Rule). INGAA members operate natural gas transmission and storage facilities in Pennsylvania, which use gas-fired reciprocating internal combustion engines (RICE) and turbines to drive compressors. The Proposed Rule requirements would affect many of these units.

INGAA and its members share PA DEP's desire to reduce the burden associated with case-by-case RACT analysis, but a number of issues must be addressed to achieve that objective.

Primary issues include:

(1) The Proposed Rule significantly under-estimates the number of affected units that would require installation of NO_x or VOC control technology. Approximately 150 units operated by natural gas transmission companies would be affected by the rule; this exceeds the PA DEP estimate for all affected units statewide. Thus, the rule would have significant impact on natural gas transmission company operations, including many requirements to install control technology and associated costs that are significantly under-estimated by PA DEP.

(2) The compliance schedule in the Proposed Rule is not feasible. The schedule requires compliance within one year, with an option to request an extension that allows up to three years. Due to the large number of affected units, there are significant scheduling implications, which could affect the reliability of gas delivery. An implementation timeline of more than three years is necessary to comply. Instead of a hard three-year deadline, operators should be allowed to provide a plan, for PA DEP review and approval, that establishes the compliance schedule for an operator's affected equipment.

(3) The proposed VOC emission standards should be deleted or replaced with compliance requirements based on good combustion practices. PA DEP relies on support documentation that inappropriately assumes that VOC emission controls would not be required, and it fails to assess implications. The proposed VOC emission standards would accomplish minimal reductions at a very high cost.

(4) The applicability threshold for turbines required to comply with emission standards should be revised to 6,000 horsepower (hp). If not, an entire class of turbines would be required to request case-by-case alternative RACT because retrofit emission control is not available for smaller turbines.

(5) INGAA supports including emissions averaging in the Proposed Rule, but that compliance option should be accessible at the discretion of the operator rather than requiring operators to first demonstrate that emission limits cannot be met for affected units.

INGAA believes that emission reductions can be achieved, but PA DEP must revise the Proposed Rule to consider technical and economic feasibility, and to define reasonable schedules. INGAA recommends that the Environmental Quality Board withdraw the proposed regulation until PA DEP can address these comments and prepare a revised Regulatory Analysis Form. INGAA offers its assistance to reconcile the issues herein and facilitate the development of viable, effective, and reasonable RACT requirements for natural gas-fired reciprocating engines and turbines.

AK Steel Corporation appreciates the opportunity to submit the following comments on the Environmental Quality Board's proposed regulation regarding 25 Pennsylvania Code, Chapters 121 and 129 - Additional requirements under the Commonwealth's RACT regulations.

General Comments

1. The current language of the proposed rule suggests that *all* combustion *sources* are subject to the presumptive RACT requirements. The term "other combustion source" does not appear to have a clear definition and the language should be removed from the rule. If the term is to stay, it needs to be clearly defined and that definition and the rule needs to be re-proposed as without this clarification, AK Steel cannot fully determine and comment on the impacts of this proposed rule.
2. In the proposed rule, the Alternative RACT Proposal and Petition requirements at 129.99 (b) appear to be a redo of the first round of RACT proposals. These same analyses have already been completed during the first round RACT proposals and assuming a reasonable escalation for inflation, the results for a second round of case by case should result in the same results as the first analysis. New or modified sources since the original plans were developed have gone through BAT or LEAR. Therefore it is requested that the requirements under 129.99 (b) be removed.
3. The cost basis that the Department will impose on the case-by-case RACT control technology analysis decisions needs to be in the rulemaking. Without this piece of information, it is unknown what the potential impact of the rule will have on the Butler Works. This is a critical component in determining the cost this rule will have on AK Steel. The rule will need to be re-proposed for AK Steel to fully analyze and comment on the rule's impact on the business.
4. The definition of process heater should be the same as the Federal Boiler MACT definition. The proposed definition is confusing and conflicts with itself. As currently written, the proposed definition could include some direct heat transfer devices to be included as process heaters. The actual financial impact of this rule, which could be very significant, cannot be determined without unambiguous clarity for the process heater definition.
5. The federal RICE regulations already captures the same emission units that the proposed rule is intended to cover and is applicable to all RICE located in the state. The federal requirements are already comprehensive, complex, complicated and sufficiently confusing without overlap of State level requirements. The specific internal combustion unit requirements should be removed and the federal guidelines referenced.

Specific Comments

1. For the purposes of this proposed rule, the definition for stationary internal combustion engine should be the same as the federal RICE rules and not include non-road (portable) engines.
2. The timing for the effective date for the rule should be changed to two years. The proposed rule will not allow enough time for identifying the appropriate control technology or replacement equipment components that are compatible with existing equipment, secure financing, and complete installation within one year. The one year timing will not allow for appropriate corporate annual budgeting particularly in the current business climate for the steel industry.

The case by case RACT proposal submittal date should be one year from the time the rule becomes final. Six months does not give companies enough time to complete the analysis in accordance with 129.92.

Finally, the timing for implementing the case-by-case RACT in 129.99 (d)(4) simply cannot be achieved within one year. Instead, it is suggested that the implementation schedule be submitted with the RACT Proposal and that the schedule start date is tied directly to the date the Department provides written approval of the RACT Proposal.

3. Under 129.97(k) the paragraph appears to only allow submitting an alternative compliance schedule if you are installing an air cleaning device. The paragraph should also allow for both the installation of an air cleaning device or *other equipment as necessary* to achieve compliance with the requirements or emission limits.
4. For units subject to the numeric limitations, the rule should allow operators the option to submit a petition for an alternative RACT proposal. Low use, back-up equipment that cannot quite meet the emission limitations could result in very large expenditures for very small emission reduction. Clearly this would not meet any reasonable cost to emission reduction benefit ratio. Allowing the use of case-by case under this particular scenario would be beneficial.
5. Compliance with the language under paragraph 129.97(c) "...in accordance with the manufacturer's specifications and good engineering practice:" will not possible in some cases, and not practical in others. Many of the process heaters and furnaces used in steel mills are specialized and custom designed and manufactured. Many sources will not have a manufacturer's specification for this reason. Or due to a units age the original specifications are no longer available. Furthermore, the language "in accordance with manufacturer's specifications" is overly broad and far reaching. Most manufacturers's operating and maintenance specifications have nothing to do with the emissions from the source. The following language is recommended: "...in accordance with the manufacturer's specifications effecting emissions, or good engineering or pollution control practices:"
6. The language in 25 Pa Code 129.97(g)(3) is unclear. The language should clearly state that emergency engines greater than 500 bhp are excluded from the emission limits for stationary internal combustion engines greater than 500 bhp.

Thank you for the opportunity to comment. If you have any questions please contact me at (724) 284-2267, or russ.dudek@aksteel.com

Enclosure 1. One Page Summary of Delaware Comments on Proposed Amendments to RACT Emission Limitations. [44 Pa.B. 2392, April 19, 2014]

- Your proposal is very important to Delaware because emissions from Pennsylvania have been demonstrated to significantly contribute to unhealthy air quality in Delaware.
- Installed emission controls in Pennsylvania are not required to operate at all times. Not requiring sources to actually operate the control technologies they have already installed defies logic and in our opinion is contrary to the RACT definition. Delaware requests that Pennsylvania revise its proposal to require the operation of existing NO_x control equipment whenever the source operates, as such a requirement is technologically and economically feasible (i.e., it is RACT). Note the fact that emission controls may have been installed in the past to operate only as necessary to comply with an EPA cap and trade program is not relevant -- any emission controls that are economically and technically feasible now constitute RACT, and such emission controls must be operated at all times.
- Emission limits for certain combustion sources are too high. EPA's RACT guidance has indicated that emissions rates and levels of control achieved in practice by similar sources are RACT for that source category. Delaware adopted in 2006 a requirement that any coal or residual oil fired EGU emit NO_x at a rate no greater than 0.125 lb/MMBTU, demonstrated on a rolling 24-hour average basis. The Pennsylvania proposal allows emission rates for similar units to be as high as 0.45 lb/MMBTU on a 30-day rolling average. The highest level that Delaware adopted as RACT twenty years ago was for stoker fired coal units at 0.40 lb/MMBTU on a rolling 24-hour average basis. Delaware requests that Pennsylvania adopt more stringent limits, consistent with today's technology. Additionally, we recommend that Pennsylvania evaluate coal fired units that have not yet installed advanced NO_x post combustion controls under RACT, and require installation of cost effective retrofits.
- A 30-day rolling averaging period is not consistent with the ozone NAAQS. EPA guidance as far back as 1984 has established that the basic objective of State Implementation Plan (SIP) measures like RACT is the attainment and maintenance of the NAAQS, and that averaging times may not be used to undermine this basic purpose. Given that the current ozone NAAQS is based on an 8-hour average, RACT compliance should be demonstrated, whenever technologically feasible, on no longer than a 24-hour rolling average basis. Delaware requests Pennsylvania to revise its proposal accordingly.
- Emission limits for municipal waste combustors are not RACT. Pennsylvania proposes only that municipal waste combustor operators meet emissions limits established in federal emissions guidelines. Several systems are available to control NO_x emissions from municipal waste combustors well below the limits in the federal guidelines. New Jersey and Connecticut have adopted NO_x emissions limits lower than the federal guidelines. Delaware requests Pennsylvania to revise its proposal accordingly.



Pennsylvania Waste Industries Association
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**Summary of Pennsylvania Waste Industries Association (“PWIA”) Comments on the
Additional RACT Requirements for Major Sources of NO_x and VOCs
Proposed Rulemaking (44 Pa. B. 2392).**

This document summarizes the four comments submitted by PWIA in our letter of June 30, 2014 (“Comment Letter”), and has been prepared in accordance with Section J. Public Comments in the Proposed Rulemaking’s preamble. As set forth in our Comment 4 below, PWIA strongly recommends inclusion of presumptive NO_x RACT emission limits for landfill gas-fired internal combustion engines.

Comment 1: PWIA strongly endorses the issuance of the presumptive RACT for municipal waste landfills that are proposed as 25 Pa. Code §129.97(e) for the reasons set forth in our Comment Letter.

Comment 2: Technical and regulatory information explaining differences between natural gas and landfill gas, and the availability of emissions controls of each, are discussed in detail in our Comment Letter.

Comment 3: PWIA supports the presumptive RACT for natural gas and other noncommercial gaseous fuels for turbines as proposed as 25 Pa. Code §129.97(g)(2)(i) and (iii) for the reasons set forth in our Comment Letter.

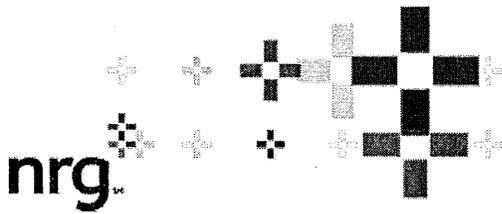
Comment 4: PWIA **strongly recommends** inclusion of a presumptive NO_x emission for landfill gas-fired internal combustion engines in proposed 25 Pa. Code §129.97(g)(3)(i)(A) and (iii)(A). The current lack of a presumptive RACT limit for NO_x emission from landfill gas-fired internal combustion engines will result in unnecessary expense, with no additional emission controls or any environmental benefit, for landfills required to conduct “case-by-case” RACT analyses for these sources. PWIA specifically requests that presumptive NO_x RACT for landfill gas-fired internal combustion engines be established in this rulemaking at a level equal to that set forth in 25 Pa. Code §129.97(g)(3)(i)(A) and (iii)(A), which will result in a level of control that is at least, if not more, stringent than the NO_x emission limits would otherwise be determined using the RACT procedures set forth in the proposed rule’s preamble. PWIA recommends additions of the clause “or a noncommercial gaseous fuel” as follows:

25 Pa. Code §129.97(g)(3)(i)(A) Natural gas or a noncommercial gaseous fuel, 3.0 grams NO_x/bhp-hr.

25 Pa. Code §129.97(g)(3)(iii)(A) Natural gas or a noncommercial gaseous fuel, 2.0 grams NO_x/bhp-hr.

**PPL Summary of Comments to EQB proposed
“Additional RACT requirements for Major Sources of NOx and VOCs”**

1. PPL supports the Board's proposed framework for implementing NOx RACT by allowing affected sources to choose among presumptive, source-specific and facility- or system-wide average compliance demonstrations. However, in order for this critical aspect of the regulation to achieve its goal of flexibility (related to technological and economic feasibility), the Board should revise the rule to clarify that an affected source may choose, without precondition, among the compliance options.
2. Any presumptive RACT emission rates must meet the Clean Air Act's requirement that RACT standards be reasonably available and cost effective. Against this standard, and as informed by EPA's CAIR/CSAPR program, PPL's analysis indicates that the proposed presumptive NOx emission rates for EGUs that are fired on coal (tangentially-fired), natural gas, or fuel oil appear to have been set at the upper bound of the cost effective range.
3. PPL also supports the Board's proposal to allow the use of facility- or system-wide averaging to demonstrate compliance with the proposed RACT limits. Properly structured, such flexibility can significantly reduce costs without reducing the environmental benefits of the program.
4. PPL is concerned, however, that the system averaging approach proposed by DEP is not workable. Fundamentally, the Proposed Rule would result in the calculation of a mass emission limitation, as a 30-day average, which *constantly fluctuates* based upon the actual heat input of the units included in the facility- or system-wide average. Therefore, if any of these emission units experience a reduction in heat input during the compliance period, the sources must achieve a *further reduction* in mass emissions in order to comply with the rule. This approach does not give the operator the ability to develop and submit to DEP a fixed facility-wide or system-wide limit that the operator can rely upon for compliance demonstration. Although the facility operator can maintain actual total mass emissions from all the sources below a level determined based on DEP's presumptive RACT limits, the units would be considered noncompliant with RACT simply because one or more sources reduced their operation during the compliance period. This has the perverse effect of penalizing the operator even though actual emissions were *lower* due to the reduced operation.
5. PPL suggests two alternatives to DEP's approach. One would be to determine that compliance with CAIR/CSAPR constitutes compliance with RACT, to the extent that a regulated source demonstrates compliance with CAIR/CSAPR by reliance only on Pennsylvania allowances. The second alternative is to implement an approach toward average mass emission limits that is consistent with EPA-approved programs adopted by other states, such as New York, New Jersey and New Hampshire. The allowable facility-wide or system-wide emission rate for each EGU would be calculated by multiplying the presumptive RACT limit applicable for that EGU by the maximum heat input of the EGU to derive an hourly mass number for each EGU. The facility-wide or system-wide average limit would be the sum of all of the hourly mass numbers in the system. Compliance would be demonstrated using a 30-day rolling average of the actual emissions using CEM data.
6. Finally, PPL requests that the proposed rule be revised to clarify that any RACT-affected emission unit that demonstrates compliance through the use of a CEMS would perform that demonstration over at least a 30-day operating period, similar to the RACT regulations of other states.



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*Summary of NRG Comments to Proposed Rulemaking –
Additional RACT Requirements for Major Sources of NOx and VOCs –
44 Pa.B. 2392-2404, April 19, 2014*

1. NRG supports the form and level of the presumptive emission limits included in the proposed rule.
2. NRG supports the option to allow for facility-wide or system-wide emissions averaging, with compliance based on a rolling 30-day basis. To allow for an effective averaging plan, NRG recommends that the Department modify the proposed rule as follows:
 - a. Clarify that any applicable emissions source is eligible to be included in an averaging plan (emissions from sources that cannot comply with their presumptive NOx RACT rate need to be averaged with emissions from sources that can comply with their presumptive NOx RACT rate).
 - b. Eliminate the requirement for the permittee to seek a permit modification to establish a NOx RACT averaging plan. This requirement is unnecessary and inconsistent with U.S. EPA guidance.
 - c. Eliminate the 10 percent "haircut" applicable to units that participate in a facility-wide or system-wide NOx averaging plan. In the proposed rulemaking and accompanying submittals to the Board, the Department has not discussed its rationale for the 10 percent. This percent haircut is not appropriate because ground-level ozone is a regional and not a local pollutant unlike other pollutants such as lead or sulfur dioxide (i.e., there are no localized "hot spots" of ground-level ozone).
 - d. Revise the mathematical equation presented in §129.98(e) as outlined in NRG's comments. As proposed, the equation is inconsistent with the requirements under subsection (d), which requires the permittee to demonstrate that the aggregate (i.e., mass emissions sum) of NOx emissions emitted by the air contamination sources included in the facility-wide or system-wide plan are not greater than the sum of the NOx emissions (i.e., mass emissions) that would be emitted by the group of included sources if each source complied with the applicable NOx RACT requirement or NOx RACT emission limitation in § 129.97 on a source-specific basis.

One-Page Summary of Comments from Philadelphia Energy Solutions Refining and Marketing, LLC (PES) on Additional RACT Requirements for Major Sources of NO_x and VOC

1. Need for definition of refinery gas in Section 121.

Emission limits are proposed for "refinery gas-fired combustion units or process heaters." However, the term "refinery gas" has not been defined. PES suggests that the definition of refinery gas should be included in the Pennsylvania rules and should match the federal definition of fuel gas under NSPS Subpart J, *Standards of Performance for Petroleum Refineries* per 40 CFR 60.101.

2. Additional information regarding the emissions averaging option.

- A. When compliance is demonstrated using the "facility-wide" or "system-wide" emissions averaging approach, we recommend that the regulation clearly state that the owner/operator is allowed to select only certain sources or facilities to include in the emissions averaging plan with the remaining units/facilities subject to presumptive or case-by-case provisions.
- B. We recommend that the averaging plan be structured to allow for facilities to provide deeper reductions during the ozone season when reductions are needed than during the remainder of the year while still complying with an annual average cap.
- C. Some of the units at the site may have existing case-by-case RACT limitations or other permit limitations that are lower than the applicable presumptive RACT limit. We recommend that such units be included in the emissions averaging equation at their permitted case-by-case RACT level rather than at the presumptive RACT level.

3. Extension of the compliance timeframe.

PES is concerned about the one year compliance timeframe for sites seeking to comply with case-by-case RACT and/or emissions averaging provisions. PES recommends that the regulations provide an opportunity to request a compliance deadline extension if such plans have been submitted to the Department timely but are held up due to agency review (i.e., include an "application shield" provision).

4. Clarification of how the PA NO_x RACT regulations will apply in the jurisdiction of Philadelphia Air Management Services

PES requests clarification regarding the jurisdiction of the Philadelphia AMS in implementing/enforcing the RACT regulations that are proposed section 129. PES recommends that compliance with proposed section 129 satisfy compliance with Philadelphia AMS RACT requirements.

5. Clarification regarding applicability of NO_x RACT regulations to temporary engines.

PES recommends that RACT operating requirements and/or emission limits for all internal combustion engines at major sources of NO_x and VOC do not apply to engines which are onsite for temporary periods of time.

6. Clarification of terms used in proposed regulation.

PES requests that the rule language be clarified with respect to the terms "process heater", "combustion unit", and "combustion source" to avoid overlapping and/or undefined terms.

7. Clarification of when the presumptive RACT limits apply.

PES recommends that the presumptive RACT emission limits apply during normal operation only.

8. Clarification of what happens to existing RACT permits.

PES recommends that the RACT regulations be revised to clarify how existing RACT permits are to be handled to avoid potentially overlapping and conflicting requirements between existing RACT plans and the new provisions.

**SUMMARY OF HOMER CITY GENERATION, L.P.'s
COMMENTS ON EQB'S PROPOSED PRESUMPTIVE RACT LIMITS FOR
ELECTRIC GENERATING UNITS**

Homer City Power Generation Station (the "Station") has three electric generating units that would be directly affected by Environmental Quality Board's ("EQB") proposed Reasonably Available Control Technology ("RACT") rule.

Homer City believes that instead of adopting presumptive unit-level RACT limits for the power sector, EQB should rely on the Clean Air Interstate Rule ("CAIR") and the Cross-State Air Pollution Rule ("CSAPR") to satisfy the Commonwealth's RACT obligations for EGUs. These two programs substantially reduce state-wide NO_x emissions from the power sector, and the U.S. Environmental Protection Agency ("EPA") has made clear that with appropriate technical support CAIR and CSAPR may be used to satisfy RACT. The analysis that EPA used in developing these rules is applicable to the "reasonably available" emission control standard for RACT purposes. EPA determined that NO_x emission reductions from these programs would "accelerate critical air quality improvement, and more effectively address . . . significant contribution to nonattainment and interference with maintenance as expeditiously as practicable." EPA also determined that "moving beyond the [Rule's] \$500 cost threshold up to \$2,500 cost threshold would result in only minimal additional ozone season NO_x emission reductions" from covered electric generating units ("EGUs"). Now that the Supreme Court has cleared the way for implementation of these rules, reliance on these programs would be more efficient and cost effective than adopting stand-alone RACT limits.

Alternatively, Homer City recommends that EQB finalize its proposed limit of 0.40 lb NO_x/mmBtu for large units (≥ 250 mmBtu/hr). While such a standard would entail additional administrative and cost burdens than reliance on CAIR/CSAPR, it nevertheless satisfies RACT and would achieve substantial reductions from the sector. Contrary to the suggestion made by some groups, EQB is authorized to adopt the proposed standard and there is no requirement for it to adopt a more stringent one. Indeed, the proposed limit of 0.40 lb NO_x/mmBtu is appropriate given the diversity of the Commonwealth's EGUs. With respect to Homer City, a more stringent standard would require substantial physical modifications to the Station's three existing selective catalytic reduction systems, which is estimated to cost between \$24-\$36 million. These more stringent standards are also estimated to increase annual operating costs of the facility by at least \$18 million.

Homer City also supports the inclusion of a mechanism for sources to obtain site-specific RACT limits and allowing sources to demonstrate compliance through facility-wide averaging. Homer City recommends, however, that EQB (1) allow all facilities to average, not just those that cannot otherwise meet the presumptive limit, and (2) eliminate the averaging penalty.

Finally, Homer City supports basing the standard on a 30-day rolling average. The final rule should clarify that compliance with such a standard is based on averaging the average daily emission rate for each day in the 30 operating day period.

Enclosure 1. One Page Summary of EPA Comments on Proposed Amendments to RACT Emission Limitations. [44 Pa.B. 2392, April 19, 2014]

I. Emission Limits for Certain Coal-fired Units: EPA advises the Board to revise allowable NOx emission limits for coal-fired boilers currently equipped with advanced controls such as selective catalytic reduction/ selective non-catalytic reduction/ammonia injection for those facilities or units which past actual emissions data show lower limits are certainly technically feasible. EPA has identified certain electric generation/cogeneration or fluidized bed boilers that have technology demonstrated to emit far below the proposed emission limits for coal fired combustion units. EPA believes that some lower limit than proposed is RACT for these units.

II. Other Emission Limits: EPA advises the Board to reevaluate the proposed presumptive RACT emission limits against current NOx emission limits currently in effect in other States as required by EPA's guidance on RACT for the 1997 and 2008 ozone NAAQS. EPA is advising that these States' emissions limits, representing recent conclusions by these other states about RACT or which were necessary to reach attainment, need to be considered and evaluated to determine if they are presumptively RACT for any categories of Pennsylvania sources. EPA has surveyed the limits in effect in those adjacent OTR States and provided a summary compilation.

III. Cost-Effectiveness: EPA advises the Board to reevaluate the proposed RACT limits by revising upward the cost effectiveness range to characterize RACT economic reasonableness and not to use a rigid "benchmark" to reject consideration of controls. Rather EPA's guidance is to consider for a source category control technologies whose range of cost effectiveness overlap an average benchmark. A reasonable average could be currently around \$3,200 per ton and the upper bound around \$5,500 per ton.

IV. Averaging Plans: EPA advises the Board to amend the averaging provisions of proposed section 129.98 to ensure that averaging plans including units inside designated nonattainment areas achieve at least RACT level reductions – excess reductions from outside any designated nonattainment area boundaries cannot be used to offset emissions above allowable RACT emissions inside any designated nonattainment area boundary. Such a change could be to prohibit averaging plans to include units outside each nonattainment area boundary or some other provision that is shown to achieve the same result. This change is necessary to conform to the Clean Air Act under the ruling of the Courts in *NRDC v. EPA*, 571 F.3d 1245 (D.C. Cir. 2009) in which the Court concluded that designated ozone nonattainment areas required to implement RACT must achieve RACT levels reductions inside the nonattainment area.

V. Title V Related: For better translation of rule requirements into Title V permits issued to sources subject to this rule, EPA advises the Board to include affirmative provisions in the rule itself to: (1) mandate that sources not using continuous monitoring systems (CEMS) to monitor compliance with periodic stack tests and parametric monitoring; (2) specify that a permit issued pursuant to proposed section 129.98(i) ensure the listing of "each air contamination source" at a Title V facility includes all NOx emitting sources at that facility; (3) require records be retained for at least 5 years; and (4) incorporate in Section 129.98 to: (a) identify what changes will mandate a change to the RACT averaging permit; (b) include actual start-up and shut-down emissions in compliance demonstrations; and (c) use the term "operating permit" and "operating permit modification" consistently.

VI. EPA recommends other minor editorial changes for clarity.