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Honeywell

Honeywell
101 Columbia Rd.
Morristown, NJ 07962

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

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Re: Comments on Proposed Rulemaking:
Additional RACT Requirements for
Major Sources of NOx and VOCs

Dear Environmental Quality Board:

Please accept these comments on behalf of Honeywell International, Inc. ("Honeywell") concerning the Board's proposed rulemaking governing "Additional RACT Requirements for Major Sources of NOx and VOCs," published in the *Pennsylvania Bulletin* on April 19, 2014 (the "Proposed Rule").

The Proposed Rule would amend Chapters 121 and 129 of Pennsylvania's air quality regulations to add or amend regulatory standards governing reasonably available control technology ("RACT") requirements for certain major stationary sources of oxides of nitrogen ("NOx") and volatile organic compound ("VOC") emissions. Honeywell owns and operates several manufacturing facilities in Pennsylvania including a chemical manufacturing facility in Philadelphia, Pennsylvania (the "Honeywell Facility"). The Honeywell Facility includes sources of VOC and NOx emissions that would be subject to the Proposed Rule if finalized as a regulation of the Board. Therefore, Honeywell has a significant interest in the Board's rulemaking efforts.

Honeywell's comments concerning the Proposed Rule are in all cases grounded in two fundamental principles identified by the Department as governing its development of the proposed standards. First, core federal and state regulatory principles require consideration of both technical and economic factors in the establishment of RACT-based standards. These principles are reflected in federal regulations promulgated by the United States Environmental Protection Agency ("EPA") to implement RACT. Indeed, EPA has directed that development of RACT limitations must reflect the application of control technology "that is reasonably available in consideration of technological and economic feasibility." *44 Federal Register 53762 (September 17, 1979)*. The Board likewise identifies the significance of technological and economic feasibility considerations in its discussion of the regulatory approach pursued through the Proposed Rule.

Second, throughout the preamble to the Proposed Rule, the Board discusses the intended benefits to many regulated sources in Pennsylvania of certainty and clarity in the application of the RACT standards. Indeed, the preamble contrasts the earlier Pennsylvania RACT (“RACT 1”) regulatory scheme, which primarily applied a case-by-case approach to standard setting. The Proposed Rule instead relies primarily on *presumptive* RACT standards to minimize the circumstances under which a regulated source must commission technical resources to develop source-specific RACT proposals. Although, as discussed more fully below, Honeywell supports the preservation through the Proposed Rule of the opportunity for source owners to pursue case-by-case RACT analyses in appropriate cases, to the extent that a source owner can avoid case-by-case analyses, the final regulation should be consistent with the stated objective of simplifying application of the regulatory requirements.

Honeywell regards a number of provisions of the Proposed Rule as consistent with both of these fundamental RACT-based objectives. For example, Honeywell generally endorses the framework of the Proposed Rule with respect to alternative compliance demonstration methodologies. Importantly, although the Proposed Rule incorporates presumptive RACT standards for certain source categories, the regulation would preserve to regulated entities the opportunity to pursue alternative compliance measures. Because the fundamental consideration in establishing RACT-based control standards is the application of technologically and economically feasible control options, it is essential that any regulated entity be afforded the opportunity to perform a source-specific evaluation of such control options for regulated emission units. Any comprehensive assessment of categorical RACT limitations cannot, by definition, appropriately address atypical considerations that impose technological or economic obstacles to compliance in individual settings. Therefore, Honeywell supports the provisions of the Proposed Rule preserving to regulated entities the opportunity to conduct a case-by-case analysis of appropriate RACT-based standards for regulated sources.

Consistent with this approach, Honeywell also acknowledges the benefits both to the Department of Environmental Protection (“DEP”) and interested stakeholders in establishing through this regulation *presumptive* RACT-level standards. Such presumptive standards provide significant administrative efficiency to DEP, preserving important resources and simplifying federal approval of this current RACT rulemaking effort. In particular, by preserving DEP resources, presumptive standards may provide the DEP with budgetary relief and free resources to address increased permitting demands and other matters requiring the expertise of the Department’s programmatic personnel. These presumptive standards benefit the regulated community as well, by speeding the permitting process, reducing its cost and providing regulatory certainty. Consequently, every opportunity should be pursued through this rulemaking to simplify and clarify the regulatory pathway.

Unfortunately, certain terms of the Proposed Rule fail to provide certainty due to the ambiguity of the regulatory language. For example, Section 129.97(b) purports to establish standards applicable to the owner and operator of sources located at a major NO_x or VOC emitting facility, and specifies distinct control measures under subparagraphs (1) and (2). However, the same regulatory provision fails to clarify that subparagraph (1) and subparagraph (2) should constitute alternative compliance options, and should not apply simultaneously to affected sources.

Similarly, Section 129.97(c) appears to establish an absolute obligation for relevant sources to be maintained and operated in accordance with both manufacturer's specifications and good engineering practices. However, in many cases, existing sources are components of complex process systems or integrated operations, such that the equipment-specific manufacturer's specifications are no longer relevant or applicable, and indeed can be inconsistent with "good engineering practice." Even more simply, with respect to older sources, manufacturer's specifications may no longer even be available. Therefore, Section 129.97(c) should be revised to require operation and maintenance of regulated sources in accordance with good engineering practice, which, in appropriate circumstances, would include operation in accordance with manufacturer's specifications.

Proposed Section 129.97(d) suffers from similar deficiencies in regulatory clarity. For example, subsections 129.97(c) and (d) are not, on their face, mutually exclusive; yet, those provisions should not properly be applied simultaneously to the same sources. Additionally, subsection 129.97(d) should be revised to limit applicability to combustion sources exceeding certain size thresholds. In particular, very small engines, including those associated with maintenance equipment, portable pumps and small generators should be expressly excluded from regulatory coverage under this provision.

The Proposed Rule also includes a proposed revision to the regulatory definition of *stationary internal combustion engine* within Section 121.1. The proposed revision to the definition would have the effect of eliminating the important constraint on the circumstances under which the defined term would extend to internal combustion engines for regulatory applicability purposes. In particular, the proposed change to the regulatory definition would result in the application of regulatory standards, including but not limited to standards in the proposed RACT regulatory regime, to stationary internal combustion engines that are otherwise subject to regulatory standards under federal law, and only under specified circumstances. Federal regulations appropriately and expressly restrict the application of regulatory standards to stationary internal combustion engines, including in the application of performance standards for the manufacturers of the engines. The Board should not, in the context of developing regulatory modifications to address RACT considerations under Title 1 of the Clean Air Act, broadly expand the scope of regulatory applicability to numerous, potentially small, engines that are otherwise specifically categorized for regulatory applicability under distinct regulatory standards.

In addition, the Proposed Regulations fail to specify the application of any presumptive standard to combustion units utilizing non-traditional fuel sources, rather than conventional fossil fuels. Sufficient information is available to the Department through prior emission assessments to justify establishing a presumptive standard for these sources. Specific to Honeywell's operations in Pennsylvania, the Proposed Rule should be revised to establish a presumptive NO_x emission standard for sources larger than 250 MMBtu/hr that combust liquid, non-fossil fuels, or co-fire liquid, non-fossil fuels with liquid fossil fuels. A categorical standard is appropriate for this source type because there are a number of such sources within the Commonwealth. Further, a proposed presumptive standard for this source category of 0.20 lbs-NO_x/MMBtu is consistent with emission levels for such sources if operated in accordance with good emission control practices and emission control measures that are both technologically and economically feasible.

As stated above, Honeywell endorses the provisions of the Proposed Rule that would allow affected sources to develop case-by-case RACT analyses to establish source-specific standards based upon considerations of economic and technological feasibility. However, the Proposed Rule should be revised to clarify that the opportunity to rely on case-by-case analyses does not require regulated sources to perform a predicate demonstration that the relevant source “cannot” meet the presumptive RACT standard, and (with respect to NO_x emission sources) cannot satisfy the emission averaging provisions. Instead, any case-by-case RACT analysis necessarily is required to evaluate the technologically “available” control systems for economic feasibility. That analysis will include assessment of any control system corresponding to presumptive RACT limitations, but would not establish a different standard for performing a unique feasibility determination for the presumptive standard. Moreover, the availability of emission averaging as a compliance alternative is in no way a required element of a RACT analysis under the federal Clean Air Act. Therefore the Board should not require any source owner to demonstrate that such emission averaging is “unavailable” as a prerequisite to a case-by-case analysis.

Honeywell believes that the proposed emission averaging provisions of the Proposed Rule constitute a justifiable and beneficial element of the RACT regulatory regime and should be preserved in the final rule. However, the current provisions governing emission averaging would severely undermine both the objectives and implementation of these regulatory provisions.

As specifically acknowledged by the Board and referenced above, RACT-based standards necessarily reflect consideration of both technological and economic feasibility. An allowance for averaging of emission rates from multiple sources across a facility or system affords consideration of countervailing economic and technological limitations, and the inclusion of such compliance alternative within any RACT-based regulatory framework is entirely consistent with the underlying principles defining RACT. Indeed, multiple states have previously promulgated RACT-based programs which incorporate facility and/or system-wide emission averaging compliance options. EPA has previously reviewed and approved SIP revisions reflecting the opportunity for facility and system-wide averaging as RACT control measures consistent with Clean Air Act standards.

For these reasons, Honeywell endorses the Board’s proposal to provide for facility and system averaging as a RACT compliance alternative. However, the Proposed Rule includes additional provisions that would severely restrict the appropriate compliance flexibility otherwise afforded by facility or system averaging. Among these restrictions is the proposal to establish the calculated emissions average standard by reducing, by ten percent, the aggregate source-specific individual RACT levels otherwise applicable to the sources included within the facility or system-wide average calculation. There is no justification for the imposition of such “penalty” upon a company electing to implement this compliance option. Indeed, those states which have incorporated averaging provisions into SIP-approved RACT-based regulatory programs have generally not adopted this automatic contraction of allowable RACT emission rates. Instead, by allowing the system- or facility-wide average RACT limitation to be calculated as equivalent to the aggregate of the alternative unit-specific standards otherwise applicable to the affected sources, the RACT regulation would preserve comparable air quality benefits while

enhancing the opportunity for affected sources to more completely address technological and economic efficiencies afforded by this compliance option.

However, the system-wide or facility-wide averaging provision included within the Proposed Rule would fail to achieve the primary objective of providing a reasonable, alternative method of compliance that ensures equivalent environmental protection. As the Board observes in the preamble to the Proposed Rule, RACT-based standards are intended to reflect a degree of control that is *reasonably available*, considering both technological and economic feasibility. It is therefore critical in order to achieve consistency with the objectives of RACT that the Board's final RACT regulation provide sufficient flexibility to regulated sources to limit NO_x emissions in a manner that is both economically and technically feasible. These objectives can be simultaneously achieved to the extent that the final RACT regulation is designed to ensure that the mass of NO_x emissions from regulated sources are maintained within levels associated with the ambient air quality protection objectives prompting the inclusion of the RACT provisions of the Clean Air Act.

Against this backdrop, it is clear that the emission averaging provisions currently proposed in the Proposed Rule would impose requirements that eliminate necessary source flexibility due to requirements that are neither required by nor consistent with RACT objectives. First, the Department's proposed emission averaging approach would provide no certainty to source operators, and instead would result in considerable variation in the calculated emission averaging standard imposed upon the facility or system. In particular, because the calculated allowable emission average depends upon actual operating circumstances for the relevant units, it becomes impossible for the facility or system operator to predict the standard to which the facility or system will be held at all times in the future. If specific operating conditions vary from that anticipated by the operator when designing the compliance strategy, the risk of noncompliance is significant.

Second, not only does the proposed approach toward facility or system averaging lead to variability and uncertainty regarding future compliance standards, the proposed standard creates compliance risks even in circumstances where the overall mass emissions of the facility or system decrease. Specifically, under the terms of the Proposed Rule, compliance with a calculated emissions average becomes highly dependent upon the ability of the operator to maintain within a narrow range the relative operating load for the lower NO_x emitting sources included with the facility or system average. In other words, at any time, these lower NO_x emitting sources must operate a sufficient period of time at a sufficient load to "balance" the NO_x emissions from the higher emitting sources included in the average. Therefore, if the lower NO_x emitting sources are unexpectedly shutdown, the operator faces noncompliance, even if the operator does not increase operation or emissions of the higher-emitting sources within the system or facility average. In such case, even though the total mass emissions from the system or facility *decreased*, and therefore the ambient air quality impacts improved, the facility or system operator would face noncompliance with its averaging obligations. For this reason, under the averaging scheme reflected in the Proposed Rule, in the event of an unplanned shutdown of a lower emitting source included within the average, the system operator likely could comply with its NO_x emission averaging limits only by shutting down most or all other NO_x emitting sources included within the system average.

Honeywell opposes these provisions of the Proposed Rule as severely undermining the intentions of the averaging provisions, and potentially preventing Honeywell and other regulated source operators from utilizing this important compliance option. These concerns can be averted while preserving the objectives of the RACT-based scheme by revising the approach identified in the Proposed Rule for facility or system averaging. Specifically, as recognized by the Board in publishing the Proposed Rule, RACT-based standards are intended to achieve ambient air quality benefits based on technological and economic feasibility considerations. Ambient air quality impacts are governed by the mass of emissions over a period of time, and not by the emission rate per unit of heat input. By establishing the facility or system average to ensure that the maximum aggregate mass emissions from the system or facility sources included within the average do not exceed a specified maximum level, the final RACT regulation can simultaneously limit mass emissions that impact air quality, while preserving the compliance flexibility intended through this averaging scheme.

Honeywell also recommends that the Board revise the provisions of the Proposed Rule governing emission averaging by expressly clarifying that a regulated entity may elect which regulated sources to include in any emission averaging group, and by further clarifying that the election by a regulated entity to participate in the emission averaging provisions of the RACT standards does not preclude such entity from utilizing any other compliance option for regulated sources not included within an emissions average. Honeywell also believes that the Proposed Rule should be clarified to expressly allow a regulated entity to determine at any time to discontinue reliance on emission averaging for any sources, and thereafter adopt any alternative RACT compliance option available under the regulation.

Separately, the Proposed Rule should be clarified with respect to the identification of the compliance demonstration period applicable to the emission standards, particularly with respect to sources utilizing continuous emission monitoring systems (“CEMS”) to demonstrate compliance. As currently drafted, Section 129.100(a) of the Proposed Rule does not expressly provide that a source subject to a RACT standard based on a case-by-case analysis would demonstrate compliance over a 30-day rolling average. Honeywell requests, at a minimum, that the Proposed Rule be revised to clarify that any source utilizing a CEMS to demonstrate compliance with *any* established RACT standard shall be allowed to evaluate compliance as a thirty-day rolling emissions average, for several reasons.

First, the Proposed Rule appropriately affords regulated entities alternative means of demonstrating compliance with RACT emission standards. Among these options, utilization of a CEMS provides the most accurate and “continuous” evaluation of compliance, and therefore is recognized by both EPA and DEP as providing an enhanced measure of compliance demonstration. In consideration of such “continuous” assessment of compliance, it is critical that the obligation to satisfy these RACT-based emission standards reflects expected variability in operations and emissions over short terms.

Second, the underlying evaluation of the technological and economic feasibility of emission controls for such sources is not based upon the continuous and instantaneous satisfaction of such standards; rather, the determination of economic and technological feasibility

reflects the expected performance of such units through application of the relevant emission controls at the systems. By establishing a thirty-day emission averaging period as the basis for the demonstration of compliance with such standards, the Board would ensure that the final regulation imposes the compliance obligations in the format reflective of the basis for establishing the standards in the first instance, and would do so in a manner consistent with the economic and technological feasibility objectives of RACT. Further, utilization of a thirty-day average for evaluating compliance in these circumstances is consistent with RACT standards regarded by EPA as acceptable in other contexts, in the context of SIP approvals and more generally in the evaluation of compliance demonstration options.

The Board proposes through the Proposed Rule to impose a significant, complex and far-reaching regulatory program. Nonetheless, the Board has proposed to afford very little time for affected sources to implement all necessary steps of the regulatory process to achieve compliance within the timeframes proposed under the Proposed Rule. By point of reference, federal regulatory schemes imposing emission or operating standards on existing sources typically authorize three years for such existing sources to achieve compliance with the newly applicable standards. The most common example of these regulatory schemes arises under maximum achievable control technology (“MACT”) standards for certain source categories. For the same reasons justifying these compliance timeframes under federal MACT standards, the Board should extend all deadlines identified in the Proposed Rule.

Of particular consequence relative to compliance timeframes, the Board has failed to address through the Proposed Rule the timing implications of pursuing a case-by-case RACT determination. Specifically, the Proposed Rule would impose the same compliance timeframes for sources satisfying presumptive RACT standards as those pursuing case-by-case determinations. Necessarily, the development of a case-by-case evaluation requires sufficient time for the source to conduct a comprehensive analysis and prepare a written proposal, and the Proposed Rule recognizes and establishes a schedule for this procedural step. Following the submittal of the case-by-case analysis, the relevant source operator must await the Department’s review and ultimate determination. The source operator cannot meaningfully initiate compliance actions to satisfy the RACT regulatory standard prior to receiving a determination from the Department regarding that standard. Upon receipt of a final determination from the Department regarding the case-by-case RACT evaluation, the source owner must undertake actions to achieve compliance similar to those that will be undertaken immediately following (if not initiated prior to) the Effective Date of the regulation for source operators relying upon presumptive standards. With respect to the installation of emission control systems, engineering design, procurement of necessary equipment, installation and coordination with facility operation, and shakedown of the new system necessarily requires up to three years, at a minimum, as recognized by distinct federal regulatory standards.

For these reasons, Honeywell proposes that the Proposed Rule be revised to establish compliance deadlines for sources undergoing case-by-case review: twelve months following final DEP determination of the case-by-case proposal, if no emission control systems must be installed to achieve compliance, and three years following DEP’s final determination regarding the case-by-case RACT proposal, if emission controls must be installed to achieve compliance.

Finally, Honeywell requests that the provisions of Section 129.97(a) and 129.97(k), relative to alternate compliance schedules, be revised to provide a mechanism for a regulated source to secure an extension of those deadlines. For example, where an affected facility has submitted its RACT compliance plans, and/or where any necessary plan approval applications have been submitted in a timely manner, but delays in issuance of required regulatory approvals or equipment delivery interferes with the ability to satisfy the compliance deadlines, the final rule should ensure that the facility owner may seek and be granted an extension of the relevant compliance dates.

We appreciate the opportunity to provide these comments on behalf of Honeywell concerning the Proposed Rule. Please contact Paul Persing at 215-807-8442 with any questions concerning these comments.

Very truly yours,



Gene Thomas
Director, Environmental Management
Honeywell Performance Materials
and Technologies

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 NOx 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 NOx 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 NOx 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.