

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
)  
PROPOSED ADJUSTED STANDARD FROM ) AS 2008-008  
AMMONIA NITROGEN DISCHARGE LEVELS AT ) (Adjusted Standard)  
35 Ill. Adm. Code 304.122 FOR CITGO PETROLEUM )  
AND PDV MIDWEST REFINING, L.L.C. )

**POST-HEARING BRIEF OF THE ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY**

NOW COMES the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA” or “Agency”) by one of its attorneys, Jason R. Boltz, submits its Post-Hearing Brief in the above captioned matter. The Agency recommends that the Board **DENY** CITGO’s request since adequate proof has not been provided as required under Section 27(a) and Section 28.1(c) of the Illinois Environmental Protection Act (“Act”) and the Board regulations to justify an adjusted standard of the 304.122(b) rule of generally applicability. In support of its Brief, the Illinois EPA states as follows:

1. The Petitioner’s facility, otherwise known as the Lemont refinery, was constructed in 1967 through 1970. Amongst the processes of the refinery, includes the treatment of wastewater discharges for the purposes of addressing ammonia nitrogen in the effluent.
2. On January 6, 1972, the Board adopted language currently found in Section 304.122(b) which addressed, specifically, ammonium nitrogen contained in treated wastewater from which the Petitioner currently seeks relief. *In the Matter of Effluent Criteria, (SWB-14), R70-8, R71-14, R71-20, (January 6, 1972).*

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3. From 1977 to 1985, the Union Oil Company, one of the Petitioner's predecessors occupying the same Lemont refinery in the case at bar, was granted five variances from the general rule of applicability concerning the ammonia nitrogen effluent limitation as stated in Section 304.122(b). *PCB 77-163; PCB 78-168; PCB 80-124; PCB 82-87; PCB 84-66.*
4. On March 19, 1987, Union Oil Company was granted a site specific rule by the Board regarding total nitrogen ammonia in the Petitioner's discharge. *In the Matter of Petition of Union Oil Company of California*, R84-13, Opinion and Order of the Board (March 19, 1987). This rule required the Union Oil Company to meet ammonia nitrogen limits of 9.4 mg/L as a monthly average and 26.0 mg/L as a daily maximum. This rule required the Union Oil Company to meet the Best Available Technology Economically Available (BAT) limitations. 35 Ill. Adm. Code 304.213; *see* 40 C.F.R. 419.23(1985).
5. On December 16, 1993, UNO-VEN, Union Oil Company's successor and the Petitioner's other predecessor, again occupying the same Lemont refinery in the case at bar, was granted for a second time a site specific rule by the Board regarding total nitrogen ammonia in the Petitioner's discharge. *In the Matter of Petition of UNO-VEN*, R93-8, Opinion and Order of the Board (December 16, 1993). This rule, like the rule in 1987, required UNO-VEN to meet ammonia nitrogen limits of 9.4 mg/L as a monthly average and 26.0 mg/L as a daily maximum. And again, this rule mandated that UNO-VEN meet the Best Available Technology Economically Available (BAT) limitations. 35 Ill. Adm. Code 304.213; *see* 40 C.F.R. 419.23(1992).
6. On December 17, 1998, CITGO, successor of the Lemont facility, from the Union Oil Company as well as UNO-VEN, was again granted a site specific rule by the Board

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regarding total nitrogen ammonia in the Petitioner's discharge. *In the Matter of PDV Midwest Refining, LLC*, R98-14, Opinion and Order of the Board (December 17, 1998).

This rule, like the previous rules in 1987 and 1993, required CITGO to meet ammonia nitrogen limits of 9.4 mg/L as a monthly average and 26.0 mg/L as a daily maximum.

This rule again also required CITGO to meet the Best Available Technology Economically Available (BAT) limitations. 35 Ill. Adm. Code 304.213; *see* 40 C.F.R. 419.23(1992).

7. On March 18, 2008, CITGO filed an adjusted standard petition with the Board, now including its predecessors, the Union Oil Company and UNO-VEN, seeking relief for a fourth time from 35 Ill. Adm. Code 304.122, which generally requires that ammonia nitrogen discharges into the Chicago River System be limited to 3 milligrams per liter ("mg/L") as a monthly average.
8. On June 20, 2008, the Illinois EPA filed its Recommendation to deny the adjusted standard petition based upon CITGO's failure to meet its burden under Section 27(a) and Section 28.1(c) of the Illinois Environmental Protection Act ("Act").
9. On August 20, 2008, an evidentiary hearing was held where the Petitioner was required to present adequate proof to demonstrate that an adjusted standard from the general rule of applicability was necessary for the fourth time in over a thirty year-five period.

### **BOARD'S AUTHORITY TO REVIEW ADJUSTED STANDARD PETITIONS**

10. In adjusted standard proceedings, the Board is charged to "determine, define, and implement environmental control standards applicable in the State of Illinois" (415 ILCS

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5/5(b) (2006)), and to “grant... adjusted standard for persons who can justify such an adjustment.” 415 ILCS 5/28.1(a) (2006).

11. In both a general rulemaking and a site-specific rulemaking and in accordance with 35 Ill. Adm. Code 104.426, the Board is required to take the following factors into consideration: the existing physical conditions; the character of the area involved, including the character of surrounding land uses; zoning classifications; the nature of the receiving body of water; and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution. 415 ILCS 5/27(a)(2006). The general procedures that govern an adjusted standard proceeding are found at Section 28.1 of the Act (415 ILCS 5/28.1(2006)), and the Board’s procedural rules at 35 Ill. Adm. Code Part 106. Section 28.1 also requires that the adjusted standard procedure be consistent with Section 27(a).
12. The Petitioner seeks an adjusted standard from the rules of general applicability. These regulations do not specify a level of justification that is required for a petition to qualify for an adjusted standard. In determining whether an adjusted standard should be granted from a regulation of general applicability where no level of justification is specified, the Board must consider, and the petitioner has the burden to prove, the factors at Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2006)). Those factors are:
  - 1) factors relating to that petitioner are substantially and significantly different from the factors relied upon by the Board in adopting the general regulation applicable to that petitioner;
  - 2) the existence of those factors justifies an adjusted standard;
  - 3) the requested standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability; and
  - 4) the adjusted standard is consistent with any applicable federal law.

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13. Further, Section 28.1 of the Act provides that the Board shall adopt procedures applicable to adjusted standard determinations. The applicable standards are contained within Subpart D of Part 104 of the Board's procedural rules.

### **THE PETITIONER MUST COMPLY WITH THE BOARD'S ORDER OF DECEMBER 17, 2008**

14. The Board required within each of its previously issued Orders as well as its most recent Order of December 17<sup>th</sup>, 2008 that (1) the Petitioner continue its efforts to meet the general rule of applicability, and most significantly, (2) **a sunset provision be issued ending the temporary limits as specific under 304.213**. R98-14 at 4; R93-8 at 6; R84-13 at 14.
15. In each of the Board's previous Orders concerning the issuance of an adjusted standard with respect to the Petitioner (and its predecessors), the Board has issued a sunset provision. The issuance of a sunset provision was clearly meant to require the Petitioner to at some point meet the goals and comply with Section 304.122(b). The Board recognized this goal and maintained an expectation for compliance at future point in time. In fact, in its Order in 1987, the Board stated, "The Rule will terminate on December 31, 1993 rather than the 1995 date proposed at first notice. This is consistent with the Agency's request that relief be more limited." R84-13 at 12. And again, in 1993 and in 1998, the Board found it appropriate to include a sunset provision.
16. Finally, in the Board's most recent Order in 1998, the sole point of contention in the proposed adjusted standard rule was the inclusion of the sunset provision. R98-14 at 3. The

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Board clearly found that the inclusion and adherence of a sunset provision was appropriate, and as a result, included a termination date of December 31, 2008. *Id.* at 4.

17. Certainly in the progeny of Orders discussed herein, due to the technical limitations and feasibility issues for purposes of compliance with the general rule of applicability, adherence with the sunset provision was not previously possible. As a result, the Board determined that immediate compliance with Section 304.122(b) was not necessary, but at each interval, the Board determined that a new termination date was appropriate. The scenario that compliance with 304.122(b) is not possible is no longer the case, however.

### COMPLIANCE WITH 35 ILL.ADM.CODE 304.122(b) IS PRESENTLY TECHNICALLY FEASIBLE

18. The Petitioner's representatives have stated within their pre-filed testimony that all four oil refineries in the State of Illinois utilize very similar technology for purposes of waste water processing. (Pre-filed testimony of Bridgette Postel, Page 9, Paragraph 25; Pre-filed testimony of Robert Stein, Page 14, Subparagraph 3) In fact, Mr. Stein, a representative for CITGO stated that, "**the treatment technologies at all the Illinois refineries are very similar.**" (Pre-filed testimony of Robert Stein, Page 14, Subparagraph 3)
19. Three out of four refineries in the State of Illinois have demonstrated that the goals and expectations of Section 304.122(b) can be met and *are technically feasible*. (emphasis added)
  - a. Exxon Mobil Oil Corporation ("Exxon") exhibited through their ammonia concentration levels as stated in Agency Exhibit 5 that compliance with

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304.122(b) **is technically feasible**. Since January of 2005, Exxon has complied with the standards of Section 304.122(b) well within the applicable limits.

- b. Marathon Petroleum Company (“Marathon”) exhibited through their ammonia concentration levels as stated in Agency Exhibit 6 that compliance with Section 304.122(b) **is technically feasible**. Since at least April of 2004, Marathon has complied with the standards of Section 304.122(b), again, well within the applicable limits.
- c. CITGO, the Petitioner, has exhibited through their ammonia concentration levels as stated in Agency Exhibit 4 that compliance with Section 304.122(b) **is technically feasible**. Since August of 2007, CITGO has complied with the standards of Section 304.122(b) well within the applicable limits. In fact, except for a five month period between April and August of 2007, CITGO has met the necessary Ammonia Nitrogen monthly average limitations of Section 304.122(b) in twenty-one (21) out of the last twenty-five (25) months.

20. CITGO is the **only** oil refinery in the State of Illinois that would otherwise be required to comply with Section 304.122(b) that has **yet to agree** to meet this general rule of applicability. As stated above and demonstrated through Agency Exhibits 5 and 6, Marathon and Exxon each meet the Section 304.122(b) standard, or even more stringent limits.
21. While much of the discussion both within CITGO’s Post-Hearing Brief and pre-filed testimony focus on Conoco Phillips’ not meeting the Section 304.122(b) standard, it is important to note that Conoco Phillips is not required to adhere with Section 304.122(b)’s standard, and as such, is not part of that regulated community.

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### THE PETITIONER FAILED TO PRESENT ADEQUATE PROOF THAT LONGER DETENTION TIMES WOULD NOT FACILITATE TECHNICAL COMPLIANCE WITH SECTION 304.122(b)

22. The Agency observed within its Recommendation that longer detention times of the activated sludge treatment processes at the other Illinois refineries that are complying with 304.122(b), may contribute to their adherence to the general rule of applicability. (Agency Recommendation, Page 9, Paragraph 20; Table 4-6 CITGO Technical Review Document; Pre-filed Testimony of Robert Stein, Page 15, Table 3 )
23. Mr. Stein *agreed* with the Agency's observation in his pre-filed testimony with the Agency's important observation stated in Paragraph 22(emphasis added). He stated within his own pre-filed testimony that, **"the only difference in the treatment systems appears to be activated sludge retention time."** (Pre-filed testimony of Robert Stein, Page 14, Subparagraph 3)
24. The Board's technical staff questioned Mr. Stein, through Mr. Rao, whether or not a detention time comparison with the other refineries was performed by CITGO. Mr. Stein responded that he had not conducted such an evaluation, clarifying that a food to micro-organism ratio would be a "more realistic evaluation." (Transcript, page 71, Lines 15-24)
25. Mr. Rao naturally followed up, asking whether or not this sort of "more realistic evaluation" regarding a comparison of food to micro-organism ratio had been conducted amongst the other refineries. (Transcript, page 72, Lines 6-9) And again, Mr. Stein responded that **no such study had been conducted due to lack of data.** (Transcript, page 72, Lines 10-12)

**CONCLUSION**

26. Petitioner must justify their Petition for an adjusted standard consistent with the requirements of Section 27(a) of the Act and submit 100% of the necessary evidence and adequate proof to justify such an adjusted standard. As stated previously, the Petitioner has the burden of proof in an adjusted standard proceeding. 35 Ill. Adm. Code 104.206. Pursuant to 415 ILCS 5/28.1 and consistent with 415 ILCS 5/27(a), the Agency submits that the Petitioner has failed to submit adequate and sufficient proof.
27. Part 304 effluent standards are the absolute minimum standards for point sources from which a relief should only be granted in rare and most extraordinary circumstances. In the past, the Board cautioned the regulated community that the Board will rarely grant relief from Part 304 standards. *In the Matter of: Petition for Site Specific Exception to Effluent Standards for the Illinois American Water Company, East St-Louis Treatment Plant*, R85-11, slip op at 11, February 2, 1989.
28. As stated in the Agency's Recommendation, for thirty-one (31) years, five variances, and a fourth adjusted standard later, Petitioner seeks to continue to monitor the ammonium nitrogen content and to "continue its efforts" to reduce ammonia and to control and manage solids from its crude supply. *Petition at 11*. This approach continues to avoid the general rule of applicability of Section 304.122(b) as previously instituted and established by the Board. All of the other refineries within the State comply with the applicable Board regulations governing ammonia limitations without permit variance or site specific rules since the technology is well developed. The Petitioner has not explored

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an adequate use of retention time to address the ammonia in its discharge. As a result, the Petitioner is the only refinery in the State of Illinois which presently seeks an adjusted standard (or a variance). Moreover, the Petitioner seeks an adjusted standard from this general rule of applicability that has been in effect for **over thirty five (35) years**.

29. The Petitioner has failed to demonstrate that the rule of general applicability is technically infeasible and economically unreasonable when applied to the Petitioner's facility. In fact, the opposite has been shown as true. The evidence has demonstrated that adhering with 304.122(b) is *technically feasible* in the present day. The evidence has shown that while the Petitioner recognized that other refineries in the State of Illinois utilize "very similar" treatment technologies, **no substantive comparison or evaluation was conducted** to ascertain whether a lengthier activated sludge retention time would address the Petitioner's compliance with 304.122(b). (Pre-filed testimony of Robert Stein, Page 14, Subparagraph 3; Transcript, page 71, Lines 15-24 )
30. The State of Illinois as well as its citizens and its environment would continue to suffer as a result of the proposed non-adherence and the present intent of the Petitioner to continue to circumvent the goals and expectations of the Board's Section 304.122(b) Rule.
31. As a result, CITGO's requested relief does not meet the requirements established under 35 Ill. Adm. Code Section 104.426 as well as Sections 27(a) and 28.1 of the Act. Therefore, the Agency urges the Board to deny the Petitioner's request for extending this relief.

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**WHEREFORE**, for the reasons stated in this Brief, in the Agency's Recommendation, and the Hearing of August 20, 2008, the Illinois EPA prays that the Pollution Control Board **DENY** the adjusted standard Petition of CITGO.

Respectfully Submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

BY: \_\_\_\_\_  
Jason R. Boltz  
Assistant Counsel  
Division of Legal Counsel

DATED: October 10, 2008  
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**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
)  
PROPOSED ADJUSTED STANDARD FROM ) AS 2008-008  
AMMONIA NITROGEN DISCHARGE LEVELS AT ) (Adjusted Standard)  
35 Ill. Adm. Code 304.122 FOR CITGO PETROLEUM )  
AND PDV MIDWEST REFINING, L.L.C. )

**NOTICE OF FILING**

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PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Pollution Control Board the attached **POST-HEARING BRIEF** of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BY: \_\_\_\_\_  
Jason R. Boltz, Assistant Counsel

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STATE OF ILLINOIS                    )  
  )  
COUNTY OF SANGAMON            )                    SS

**PROOF OF SERVICE**

I, the undersigned, on oath state that I have served the attached **POST-HEARING BRIEF** upon the persons to whom it is directed, through an electronic filing to the Board, and by placing a copy in an envelope addressed to:

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and sending it U.S. First Class Mail from Springfield, Illinois on October 10, 2008, with any necessary postage affixed as indicated above.

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**IV. SUBSCRIBED AND SWORN TO BEFORE ME**

this day of October 10, 2008.

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Notary Public